









1957.

1951.1 10 mo. NE. of Colfax, Colfax Co., New Mexico. Elev. circa 6200 feet. July 21, 1957. (R.).

<sup>Open plains</sup>  
Roadside water corn of ungrazed meadow, thistle, wild ground, scattered Yucca filamentosa, and areas of bare ground.

Relatively few adult lenth. Juv. of a few species very numerous.

✓ Paropromala 1♂ & 1♀, swept at different times, all seen.

Agrostotellus, a few adults - not numerous.

Apia a few juv. only.

Blissotaria car. 1 seen but lost.

Trimastropis pallid. " " " "

Campylacantha 1 ad. not all juv. ~~very~~ numerous.

Phyllotelia numerous - all juv.

Melanopterus laticornis a few adults.

" viridatus 1 seen. Taken.

" mix. a few adult.

Conocleptus 1 juv. Taken, all seen.

lenth. 36

lenth. vis. 36



1951. 2 In ~~Canon~~ Canyon, 6 ms.  
W. of Cimarron, Colfax Co., N. M. Elev. 6800  
ft (ann.). July 21, 1951. (R.)

Park-like opening in piñon, juniper &  
thin oak at lower edge of heavy forest  
belt. Areas of bare or short-grassed grounds  
very few ♀.

Perdissa 1 swept from ground. 1 lost.  
Trachyrhynchus hinnia 1 on ground. - all seen.  
Cordilleris 1 taken on ground - 1 lost, all seen.  
Mel. nux. Several seen, 1 taken.

Amphisp. no. very few.

$$\text{Utter 6} + 36 = 42.$$

$$\text{Utter no. 6} + 36 = 42.$$

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1951. 3 Along Clear Creek, 4 ms. W. of  
Ute Park, Colfax Co., N. M. Elev.  
(ann.) 7000 ft. July 21, 1951. (R.)

Open spots in pine and fir forest, with  
much low oak scrub. Bare ground in  
spots, surface largely stony.

No Utter. adult or taken except 1  
Amphisp.

$$\text{Utter. 1} + 42 = 43.$$

$$\text{Utter no. 7} + 42 = 49.$$

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1951. 4 8 mo. S. of Eagle Nest, Colfax Co.,  
N.M. Elev (aner) 7650 feet. July 21. 1951.  
(R.).

Near south end of mountain park containing  
Eagle Nest Lake. The bare red soil and  
wedy dry mountain meadow vegetation.  
All Q. seen taken except 1 Hemithys lost.

~~Tamias~~

Circotettix rubula 1 on bare soil. Coloration

strongly protuberant. - all seen, altho' search  
was made for more.

Amphitornus a single one taken, all seen

Mel. mex. a single one taken - all seen.

Clth.  $3 + 43 = 46$ .

Other ins.  $34 + 49 = 83$ .

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1951 5 ~~Atlatlach~~ Santa Fe, Santa Fe Co.,  
N.M. Elev (chub). VII. 22. 1951. (J. R.).

Stenopelmatus (Phrixocnemoides) found  
nearly dead on stones on floor of car garage in  
morning. Dragon-fly on ~~wall~~ wall of garage.

Clth  $1 + 46 = 47$ .

Other ins.  $1 + 83 = 84$

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1951. 6 10 mts. SW. of Santa Fe, Santa Fe  
Co., N.M. Elev. (aner.) 6700 feet. VII. 22. 1951.  
(R)

High plains conditions, sun-cured short



curly grass, with scattered Ephedra-like  
bushes and occasional low juniper.

Parastrephia most juv., few and local on  
Ephedra-like plant (sample taken).

Psoralea delic. 2 seen (all) and taken, widely  
separated. Apparently spring tail-eat.  
<sup>the plant.</sup>

Cordillaria - locally numerous on ground.

Mertensia plattii type. - in fair numbers, local,  
on ground

$$\begin{array}{l} \text{Cush.} \quad 28 + 47 = 75. \\ \text{Cush. ins.} \quad 8 + 84 = 92. \end{array}$$

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1951.7 2 mls E. of San Felipe Village,  
Sandoval Co., New Mexico. Elev.  
(ann.). 5100 feet. July 22, 1951 (R.).

On break-down of silt brush along eastern  
side of Rio Grande. Surface covered with  
heavy pavement of variously sized stones.

Cover scant - a few thistles and sparse  
Ephedra-like shrub, <sup>low</sup> green + a few  
junipers.

No C. except Cibolensis, which was  
infrequent and actin, as usual.

Five seen - three taken, two lost.

Difficult to mark down.

$$\text{Cush.} \quad 3 + 75 = 78.$$

$$\text{Cush. ins.} \quad 0 + 92 = 92.$$

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1951.8 4 miles S. of Bernalillo, Sandoval  
Co., New Mexico. Elev. (aner.). 4900 feet.  
July 22, 1951. (R)

Flat grassy ~~bottom~~ river plain near the Rio  
Grande, with bushes of tall compositae (not  
in flower), and also some short curly grass,  
and a few areas of bare ground.

Litanentria 1 swept, apparently from ground.

Mormira 1 seen and lost.

✓ Cordillaria in small numbers, on ground.  
Paropromata numerous in grass, or on ground  
when disturbed, two  
color types present.

✓ Cremia detto  
Mustelipoma pallidipennis type. 1 ad. + 1 juv. taken all  
Agrostotellus - a few on ground.  
Caritellus " " " " - all recognized  
Agrostotellus " " " " - all recognized  
taken.

Orth. 46 + 78 = 124.

Other ins. 4 + 92 = 96.

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1951.9 7 miles S. of La Ventana, Sandoval  
Co., N. M. Elev. (chart) 6700 feet. July 23, 1951.  
(R).

Hilt surface in part with Fopping Stone  
parcment. Corn (spruce) short curly  
sun-dried grass, Sarcobatus, some Artemisia  
and scattered low juniper.

Not Q. except 2 Trimerost. pallidipennis

Orth. 2 + 124 = 126.

Other ins. 1 + 96 = 97.

1951. 10. 5 miles S. of Cuba, Sandoval Co.,  
N.M. Elev. (ann.) 7400 feet. VII. 23. 1951.  
(R.).

Heavily grazed grass country with pinyon,  
juniper + some bull pine.

No Q. - other insects swept.

Clth.  $0 + 126 = 126$ .

Other ins.  $5 + 97 = 102$ .

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1951. 11 4 miles W. of Cuba, Sandoval  
Co., N.M. Elev. (chart) 7100 feet.  
VII. 23. 1951. (R.).

Open bull pine woods, with sage, some  
Atriplex, etc. Much nearly bare ground.  
Circotettix rubula - a few only, two  
taken, not very or particularly active.  
Not actively clattering, but day clear  
+ warm.

Herotus - 1 ad. seen - lost - 2 juvs. Taken  
on ground.

Psolocera delic. seen - lost

Melanophus sp. ——— 1 only seen +  
taken - in tall pine shrub.

Clth.  $5 + 126 = 131$ .

Other ins.  $34 + 102 = 136$ .

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1951.12 5 miles NW of El Huerfano Mesa,  
San Juan Co., N. Mex. Elev. (aner) 6325  
ft. VII. 23. 1951. (R.).

Silty soil with sage and broom-corn  
like plant (sample taken).

Arth. ign. Eremopides in litter.

Arth. 1 + 131 = 132.

Arth. vis. 0 + 136 = 136.

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1951.13 7 mls. E. of Shiprock, San Juan Co.,  
N. M. Elev (chart) 5000 ft. VII. 24. 1951.  
(R.).

Roadside along alfalfa fields.

No O. except Blissus. Carolina on  
road pavement - shoulder slopes.

Arth. - 2 + 132 = 134.

Arth. vis. 13 + 136 = 149.

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1951.14. 4 mls. S. of Table Mesa, San Juan  
Co., N. M. Elev. (chart) 5422 ft. VII. 24. 1951.  
(R.).

Silt with scattered low tufts of heavily  
grazed grass, a few Atriplex, a small  
other low plants.

✓ Eremurus just swept.

Melanophus sp. just swept

} Vigors and  
gilded us more

Arth.  $2 + 134 = 136$ .  
Arth. ins.  $0 + 149 = 149$ .

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1951. 15 34 mi. N. of Gamsco,  
McKinley Co., N.M. Elev. (aner.) 6500 ft.  
VII. 24, 1951. (R.).

Silt swells with scattered small &  
large (some boulders) stones. Very little  
vegetation except along a wash. latter  
produced nothing.

Cordillarius scarce, 5 seen, 3 taken,  
always on bare silt.

Arth.  $3 + 136 = 139$ .  
Arth. ins.  $0 + 149 = 149$ .

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1951. 16 9 miles W. of Gallup, McKinley  
Co., N.M. Elev. (aner.) 6200 ft. VII. 25,  
1951. (R.).

Roadside, with nearly bare ground, Fremont  
weed & spiny bush (sample kept).

Trim. pallidip. One seen - lost.

~~Not~~ Aclophides infreq. in pickle (spiny) bush  
(sample kept), adults & juvs. All taken  
represent about 1/2 hour beating and  
searching.

Arth.  $9 + 139 = 148$ .  
Arth. ins.  $18 + 149 = 167$ .

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1951. 17 4 miles SW. of Lupton, Apache Co., Arizona. Elev. (aner.) 5920 feet. VII. 25, 1951. (R.).

Low hills with juniper, clumps of low composites (not in flower), some pickle bush (see 1951. 16) and tumble weed. Surface silt and stone shingle.

Hyperstethis in composites, chiefly juv.; not common.

Acrolophides juv. only, swept.

Trim. pallidip. 1 juv. but lost.

loth.

loth. 19 + 148 = 167.

loth. 6 + 167 = 173.

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1951. 18 Chambers, Apache Co., Arizona. Elev. (2nd map) ~~5750~~ 5754 feet. VII. 25, 1951. (R.).

Gentle hill slope; surface sandy silt with scattered Atriplex and the feathery soft sage (sample kept) and scattered junipers.

Plagiostoma 1 ad. ♂ in top of soft sage (sample kept): no more found although diligent search of many of these and other bushes was made.

Urocyon, a few. ~~juv.~~ only, on same plant.

loth. 6 + 167 = 173.

loth. 12 + 173 = 185.

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1951. 19 8 miles W. of Navajo, Apache Co.,  
Arizona. Elev. (ann.) 5600 feet. VII. 25, 1951.  
(R.)

Roadside (ungrazed) - behind mine  
heavily grazed. Atriplex, soft sage and  
tufts of bunchgrass - much bare soil.  
Cordillaria few on bare ground and in  
low grass mats.

Acrolophus swept from ~~low~~ low cover.

Hesperotettix 1 sp. swept.

✓ Ceremiacis no juvs. in tall grass.

Orth. -  $9 + 173 = 182$ .

Other ins.  $2 + 185 = 187$ .

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1951. 20 22 miles N.E. of Holbrook,  
Navajo Co., Arizona. Elev. (ann.) 5400  
feet. VII. 25, 1951. (R.)

Silt slopes with fine stone pavement in  
places. Atriplex (scattered), a few low  
yucca and bunch grass.

✓ Ceremiacis juvs. swept from tall grass.

Paratrachodes juvs. swept.

Cordillaria few on silt.

Melanophus sp. 1 swept

Orth.  $13 + 182 = 195$ .

Other ins.  $0 + 187 = 187$ .

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1951.21. Joseph City, Navajo Co., Arizona.  
Elev. (chart) 5000 feet. VII. 15. 1951. (R.)

Roadside tall ~~windy~~ <sup>windy</sup> growth near  
irrigation ditch.

No. Q. except 1 juv. Melanophus -

Urch. 1 + 195 = 196

Other ins. 4 + 187 = 191

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1951.22 3 mls W of Winslow, Navajo Co., Arizona.  
Elev. (ann.) 5140 feet. VII 26. 1951. (R.)

Surface red silt of Mesozoic derivation.  
Covered with bunch grass - other very  
low growth.

Trin. latif. sp. 1 seen - lost.

1 juv. Acrolophides impt. No other Q. seen.

Urch. 1 + 196 = 197

Other ins. 2 + 191 = 193

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1951.23 1 mile E. of Herminson, Coconino  
Co., Arizona. Elev. (ch. - ann.) 5000 feet.  
VII. 26. 1951. (R.)

Red silt wash with marginal clumps  
of Atriplex and low composites. Wash  
floor with bare silt + Tufts of bunch grass.  
Acrolophides same in Atriplex, found only  
in two clumps of same water. - 1824 feet.

all ♀♀ of Aeroplides very pale whitish green.  
Neoprotella taken from same Asterplex

as 2 ♀♀ of Aeroplides.

No other Orthoptera.

Orth. 4 + 197 = 201

Other ins. 16 + 193 = 209

(the 2  
tuff as  
pale  
green.)

1951. 24 At N. base of Meteor Crater,  
Coconino Co., Arizona. Elev. (ann.) 5600 ft.  
VII. 26, 1951. (R)

Reddish Monticopic silt with exposures  
of same shale and areas of thinning of same  
on silt.

No O. except 1 Cibolacris on thinning.  
Orth. 1 + 201 = 202  
Other ins. 0 + 209 = 209

1951. 25 Three miles W. of Two Guns (Canyon  
Bluffs), Coconino Co., Arizona. Elev.  
(ann.) 5650 feet. VII. 26, 1951. (R.)

Common bunch grass, low composites (some in  
yellow flower) on silt with open pavement  
of whitish limestone fragments.

Endallaria very scarce on silt - all seen  
taken except 1 lost.

Melanoplus juv. impt.

Neoprotella " "

Orth. 5 + 202 = 207.

Other ins. 0 + 209 = 209.



1951.26 Eastern boundary of Coconino  
Nat. Forest immediately S. of Angel,  
Coconino Co., Arizona. Elev. (approx.) 5900 ft.  
VII. 26. 1951. (R.)

Open juniper and piñon stand in  
strong rolling country.

Only C. encountered was Desmodium, in  
tall but spidery limp composite (not in  
flower).

Dist. 3 + 207 = 210.

Letter ins. 5 + 209 = 214.

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1951.27 2 miles W. of Winslow, Coconino  
Co., Arizona. Elev. 6400 ft. VII. 26. 1951.  
(R.) Open forest of relatively tall juniper  
and piñon, with much "juniper" (of the  
Utah mormons) shrubby, scattered low  
composites, and areas of blackish silt,  
partly bare or with irregular limestone  
fragments.

Trimer. red leg. Two on bare areas -  
1 lost, 2 taken. Wild.

Blissotia card. 1 seen - lost.

Polioptila delic. 1 on ground - all seen.

Melanophaga h. w. sp. 2000 kept from trees  
low com - all seen.

Cleistanthus sp. 1 ad. + 1 juv. empty

leth. 8 + 210 = 218.

leth. vis. 8 + 214 = 222.

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1951. 28 3 miles due S. of Flagstaff.

Cocconino Co., Arizona. Elev. (ann.) 6925 feet.

VII. 27, 1951. (R.)

Opening in bull pine forest. Low composites  
and very low mats of other vegetation, some  
mullen.

Eriogonum 1 ♀, all seen, on ground

Mul. sp. w. 1 ♂ empty, all seen.

Trim. red-leg. 1 of 2 seen on bare ground.

leth. 3 + 218 = 221.

leth. vis. 19 + 222 = 241.

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1951. 29 N.E. end of Mormon Lake, Cocconino  
Co., Arizona. Elev. (ann.) 7200 feet. VII. 27, 1951.  
(R.)

Open brush bordered by ♀ bull pine forest.

Low grass, yellow-flowered composites of

a number of species, this the end mullen,

the ground surface with many scattered

low fragments of var. sizes.

Lithantrix - 1 running on ground.

Agrostis <sup>sp. w.</sup> not numerous, chiefly grass.

on ground.

Antennaria but two seen - taken separately on ground.

1957.29 (cont.)

Trim. red-legged sp. 1 juv. on ground.

Neurostethus th. w. Not common, and in a variety of situations. Adults - juvs.

Melanoplus unus. a few.

" th. w. a single ♂ taken.

" other juvs. seen + taken.

leth. 21 + 221 = 242.

leth. ins. 50 + 241 = 291.

1957.30 7 miles S. of So. End of Mormon Lake,  
Cocron Co., Arizona. Elev. (approx.) 7500 feet.  
VII.27, 1957. (R.)

In open hill pine forest with stretches of relatively treeless character. Low shrubs and many low shrubs and annuals. Much timber slash and dead wood about. Many scattered lava rocks.

Arphia 2 ♀♀ Taken separately on ground, all seen.

Trim. red-leg. 1 ad. + 2 juvs. On ground.

Cicostethus coronatus. A few seen and heard.  
1 taken.

Heavy oedipodoid - juvs. Phrynostethus? -  
three in instar preceding maturity, on  
ground - very poor hoppers. All seen.



Melanophus fuscus-nigrus. Numerous  
and active. Un pinned. <sup>Relatively</sup> ~~very~~ few males in  
prop. to females.

Orth.  $28 + 242 = 270$ .

Other ins.  $5 + 291 = 296$ .

1951.31 Betw. Mormon Lake and Rang  
Valley (18 miles S. of <sup>So. end of</sup> ~~from~~), Coconino  
Co., Arizona. Elev. (aney) 7300 feet. VII. 27, 1954.  
(R.)

Open flat in bull pine woods rather  
closely carpeted with grass and low  
annuals, numerous small lava fragments  
scattered on the surface, soil dark brown.

Argemone - 1, all seen, in ground.

Amphitornus - very low, a few in ground, two  
taken.

Agaveotettix Th. w. - very local and very few.

Trimus. red leg. 1 ad. + 1 juv. Taken. All seen.

Melan. nigr. 1 Taken, all seen.

" fuscus-nigrus. Locally numerous,  
active. Moderate numbers taken.

Orth.  $21 + 270 = 291$

Other ins.  $2 + 296 = 298$ .

1951.32 15 miles S. of So. end of Mormon  
Lake, Coconino Co., Arizona. Elev. (aner.) 7000 ft.  
VII. 27, 1951. (R.).

Moderately open area in bull pine forest,  
but with more lawn and less diversified  
cover than at 1951.30 or 1951.31.

Agrostellix th. w. 1 taken, no. thus seen.  
Thim. red. leg. 1 taken - all seen.

Melanoplus th. w. A few.

Orth.  $5 + 291 = 296$ .

Uther vis.  $0 + 298 = 298$

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1951.33 13 miles S. of So. end of Mormon  
Lake, Coconino Co., Arizona. Elev. (aner.)  
7625 feet. VII. 27, 1951. (R.).

Open bull pine woods with tall grass and  
various low annuals - some fallen timber.

Cricotellix coconino 1 taken from  
pine needles on ground.

Mel. th. w. Hummerana - action.

Orth.  $9 + 296 = 305$ .

Uther vis.  $4 + 298 = 302$ .

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1951.34 10 miles S. of So. end of Mormon  
Lake, Coconino Co., Arizona. Elev.  
(Anni.) 7425 feet. VII.27.1907. (R.)

Mountain meadow in tall pine forest,  
considerable areas quite damp - a  
little standing water. Grass cover of  
several different types, including a  
Spartina-like one.

Hippiscus<sup>(X)</sup> a single female in ground,  
but moderately active.

Camnula 1 ♀ - all seen, altho' species  
rank made for more.

Chrysostoma com. No. given. Taken - no  
adults seen. The former not on  
roadway material!

~~Trinervus~~

Cristellus coronatus - a single one taken.

Hel. mexicanus common in rotten spots.

Th. w. Moderately numerous.

Orth. 32 + 305 = 337.

Orth. ins. 4 + 302 = 306.

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1951.35 So. end of Clark's Valley, north of  
Mormon Lake, Coconino Co., Arizona.  
Elev. (aner.) 6925 feet. VII.27.1951. (R.)

Open valley slopes in pine woods. Strong  
silt with numerous old sized pieces of  
lawn. Plant cover chiefly two yellow-  
flowered composites (sw. species - prob. *juv.*?)  
mullen, and a low moss-like mat  
plant.

*Critetia* - 1 ♀ - all seen.

*Asperotettix* th. w. - locally numerous,  
but not confined to composites. Females  
scarce.

*Mel. laticornis* - a few, 4 Taken.

" th. w. - not common.

*Arthroa* - 2 ♂, 1 ♀, all Taken separately  
and all seen. The first male seen was  
in flight.

Arth. 25 + 337 = 362.

Other was. 9 + 306 = 315.

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1951.36 East base of Elden Mtn., 6 miles  
N.E. of Flagstaff, Coconino Co., Arizona.

Elev. (chart) 6900 feet. <sup>flat</sup> VII. 28, 1951. (R.)

Open pine woods, with short grass  
and numerous shrubs and animals, incl.  
some composites and the bush (of which  
sample was taken from 1951.27 to which  
Pediscintellus runs to be partial).

Parabryllus - 1 impt.

Psolocosa delia - infrequent, on ground,  
widely scattered.

Agrenotettix th. w. locally abundant -  
rare juv. on ground.

Amphitornus ditto

Antitettix mr. ~~ditto~~ very local, but  
numerous in its colonies, on ground.

Pediscintellus rev. 1 ad. ♀ & 1 juv. impt.

Trachycharis rima - abundant,  
general.

Hadrotettix trif. a number, but usually  
tiny, on ground, and much less  
apt to take wing than usual. Size  
small for species.

Hippinus (X.) a single ♂ (w/leg) on ground,  
apparently a spring visit.

1951.36 (cont.).

Cordillarius locally abundant, very active, on ground.

Philibetrona - a few juvs. only - nupt.

Melanophus franciscanus. Local and very active.

Mel. forbesi? a few, resembles M. fran.

Mel. th. w. very scarce, but there taken - all run.

Hesperotettix th. w. Locally numerous, some in companies, others not. Active.

Plagiostria 1 ♀ in Terminal clump of plant of which sample was taken, 1 ♂ nupt. All run.

Oreanthus - juvs. - nupt.

Lygus - 1 ♀ nupt. foraged.

Utth.  $217 + 362 = 579$ .

Utth. inc.  $5 + 315 = 320$ .

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1957.37 10 miles NE. of Flagstaff (at junction of Schuyler Pass road with U.S. 89), Coconino Co., Arizona. Elev. 6850 feet (aner.) VII.28, 1957. (R.)

[This is Mr. White's recorded locality for Pedioscirtus nevadensis - he piloted me there personally.]



Open pine woods on Casa Vieja, with scattered fragments. Low mat plant cover in places, brush grass and several Tallen Thrushes and animals, including the *Pedioscirtus* plant, of which I took a sample - which Mr. White has recorded in his paper.

Ritamarctia 1 on ground.

Mermiria monax. 1 ♂ in tall brush grass (green phase).

Pedioscirtus nov. Local, some flying when disturbed, others more sluggish. Mr. White's two sons gave me several of the 1 ♂, 2 ♀, 1 juv. included here. Same plant sample of the Fall, with plant, which at least some were taken, but most were seen after being disturbed and moving away.

Proctos delic. a few, on ground.

Cordillaria locally numerous.

Agrostis <sup>th. w.</sup> Common

Amphitornus <sup>a few</sup> ~~in fair numbers~~, on ground.

Cerithy in fair numbers " "

Trachyr. linna Common, several.

Hyperotelia th. w. Very local, in composite usually.

Melanophus francisc. Infrequent, three taken.

1951.37 (cont.).

Mel. lachrymans. In fair numbers.

Arth.  $69 + 579 = 648$ .

Other vis.  $9 + 320 = 329$ .

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1951.38 1 m. E. of Riordan, Coconino  
Co., Arizona. Elev. (ann.) 7200 feet. VII. 29. 1951.  
(R.)

Close stands of brush pass on lava trail,  
with many lava boulders under mixed-  
growth pine.

Paraburillus - 1 rupt.

Acanthotettix - a few, local, adults - pins.

Chlorosternia carolina - several seen, 1 taken.

Mel. fuscus - neglectus - several seen and  
taken

Mel. th. w. diff. species - 1 male rupt. - all  
taken.

Arth.  $12 + 648 = 660$ .

Other vis.  $15 + 329 = 344$ .

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1951.39 2 m. E. of Parks, Coconino  
Co., Arizona. Elev. (ann.) 7000 feet.  
VII. 29. 1951. (R.)

Lava trail with numerous fragments,  
thickly clothed with low composites (few in





1951. 41 West rim of main Coconino plateau, 8 miles E. of Ash Fork, Yavapai Co., Arizona. Elev. (Am.) 6300 feet. VII. 29, 1951. (R.)

Open juniper and piñon with very short, closely grazed, curly sun-dried grass. Lash silt bare in places, much lava scattered about.

Heterostichus seen clearly in last.

Trim. red-leg. 1 taken, all seen.

Argia - 1 taken, all seen.

Utch. 2 + 643 = 645.

Utter vis. 0 + 352 = 352.

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1951. 42 West side of south end of Aubrey Cliffs, 4 miles W. of Seligman, Yavapai Co., Arizona. Elev. (Ch.) 5200 feet. VII. 29, 1951. (R.)

Tall brush grass, soft orange, low composite, an Cephaelis and a few Legume, and a number of other plants on red sandstone talus from cliffs.

✓ Peromyscus - very few in brush grass, 1 ♂ and 1 ♀ taken singly.

Amphitornus - a few on ground  
Hesperotettix long-w. - few and  
in low composition.

Oenothera a juv. inst.

Count .9 + 685 = 694.

Other ins. 5 + 352 = 357.

1951.43 1 mile N.E. of Yampai, Coconino  
Co., Arizona. Elev. (Ch.) 5400 feet. VII. 29, 1951.  
(R.)

Open country with short bunch grass and  
thistle. Almost no O. at all except  
1 ♀ Agrostotettix (4) + juv. Cordillarius - Uperis.  
Count. 6 + 694 = 700.  
Other ins. 0 + 357 = 357.

1957.44 Yampai Canyon, 9 miles E. of  
Peach Springs, Coconino Co., Arizona.  
Elev. (Ch.) 5500 feet. VII. 29, 1957 (R.)

Mats of short grass, clumps of bunch grass,  
tumble weed, Atriplex and low composites.

Cordillarius 1 ad. on ground.

Uperis (?) 1 juv.

Amphitornus 1 juv.

1951.44 (cont.)

Perlossa delie. 1 ♀ - all seen, on fr.

Mutobryna plattii sp. - com. Taken - all  
seen - on bromeliads.

Acroplidae - adults - juvs. in Atriplex.  
Very difficult to get. 3 ad. + juvs. taken.

Hesperotettix L.W. - few in composites -  
1 ad. - 1 juv. taken.

Orth. 12 + 700 = 712.

Uster in 2 + 307 = 309.

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1951.45 NW <sup>trans</sup> slopes of Huachuca Mts.,  
6 miles from Kingman, Mohave Co., Arizona.  
Elev. (aner.) 4800 feet. VII.31.1951. (R.)  
Eroded slopes of wash-out debris, with open  
cover of agave, cacti, acacia, Koeberlinia  
and other shrubs. No Covillea.

Pseudoverrucula - 1 ♂ swept, all seen.

Paropromela - 1 juv., swept, " "

Perlossa texana - 2 seen, 1 taken.

Phisotoma venusta (apparently). 1 adult  
seen on agave - lost.

Pseudotettix long. 1 swept, all seen.



Hesperostetha - 1 juv. swept.

Orth. 5 + 712 = 717.

Uthmanis . 1 + 357 = 360.

---

1957. 46 SW. Slopes of Huachuca Mts.,

Maricopa Co., Arizona. Elev. (approx.) 5200 ft.

VII. 31. 1957. (R.J.).

Pinus, juniper (few), a spiny holly leafed,  
usually low and mat. like bush, cacti,  
agave, some short bunch grass and numerous  
other less conspicuous plants.

Pseudoscorpion - 1 juv. swept.

Stegomyia - 1 juv. swept.

Mesochorus texana (det. absolute), 1 seen  
in next but lost. Was sitting on a  
boulder.

Trich. pallidip. - seen - lost

Scolecophagus 1 ♀ swept from holly  
leafed plant.

Chrysanth. - 1 juv. swept. Was pink  
head.

Orth. 4 + 717 = 721.

Uthmanis . 0 + 360 = 360

---

1951.47 Canyon in NW. face of Huulpai  
Mountains, Mohave Co., Arizona. Elev. (approx.)  
5400 feet. VII. 31. 1951. (R.)

Reddish gravelly wash material  
on canyon slopes above steep arroyo.  
Common arborescent juniper (occasional), much  
low holly-leafed oak-like shrubs (as noted  
for 1951.46), some white-flowered low plant  
(apparently a composite), cacti and agave. Area  
of bare wash.

Psoloma<sup>For.</sup> - not common, very active and  
on ground as usual.

Cibicides - locally in small lots on wash.

Trin. red-leg - a very few on wash mat.

Neopentidites - a very few in white-flowered  
thrust, 1 ad. & 1 juv. Taken.

$$\text{Length} \cdot 12 + 721 = 733.$$

$$\text{Width ins. } 0 + 360 = 360.$$

---

1951.48 NW. Slopes of Huulpai Mts.,  
7 miles SE. of Kingman, Mohave Co.,  
Arizona. Elev. (approx.) 4500 ft. VII. 31. 1951.  
(R.)

Long extensive slopes of silt and string  
gravel. Common chiefly agave, a low

composite (not in flower), 1 Cochloselinia,  
some acacia, cacti, and a very little  
brush grass.

Pseudoscorpion - 1 ♂ swept

Metabryna p. rubripennis - a few,  
taken with both red and yellow disked  
wings.

Thim. pallidip. 1 taken.

Agrostotellus - 1 juv. swept.

Agrostotellus 1 juv. swept.

Uths  $8 + 733 = 741$ .

Uths vis.  $2 + 360 = 362$ .

---

1957. 49 Lower <sup>N.H.</sup> outwash slopes of Huachuca  
Mts., 4.5 miles S.W. of Kingman, Mohave  
Co., Arizona. Elev. (approx.), 4000 feet. VII. 31. 1957.  
(R.)

Arroyo slopes of lower outwash of mts.,  
mostly fine silt. Vegetation consists chiefly  
palo verde, cacti - various low bushes with  
a few Covillea <sup>mostly</sup> along the shallow  
washes.

Pseudoscorpion 1 ad. ♂ + 1 juv. few. swept



1951.49 (cont.)

Parabryllus - 1 ♀ swept.

Ritarenantia 1 juv., running on the ground.

✓ Paropomala - 1 juv. swept.

Agerostellus - 1 juv. swept.

Trim. pallidip. - 1 ad + 1 juv. Taken - no  
others seen.

Cibolarius - a few, 3 taken.

Encarna covilleae - 2 juvs. swept from

Covillea, no others seen.

Orth. 15 + 741 = 756.

Orth. vis. 5 + 362 = 367.

---

1951.50 9 miles W. of Kingman, on  
Harris Blum Road, Mohave Co., Arizona.

Elev. (aner.) 2850 feet. VIII, 1, 1951. (R.).

Wash bottom with tall bunch grass,  
creosote bush and some composites.

Pseudosimulx 1 adult male swept.

✓ Paropomala 1 ♀ flushed from bunch  
grass. No other O.

Orth. 2 + 756 = 758.

Orth. vis. 3 + 367 = 370.

---

1951. 51 E. side of Union Pass, Black  
Range, Mohave Co., Arizona. Elev. (ann.)  
3350 feet. VIII. 1, 1951. (R.)

Covillea and yucca covered slope, with  
a few junipers and a ghost-like bunch  
grass.

No. 0. except juv. Bortettia swept from  
Covillea and 1 Cibolarius on ground.

Orth. 4 + 258 = 762.

Uther ins. 2 + 370 = 372.

---

1951. 52 W. side of Union Pass, Black  
Range, Mohave Co., Arizona. Elev. (ann.)  
? feet. VIII. 1, 1951. (R.)

Steep slopes interland with  
wash. Com Covillea, yucca, acacia,  
cacti, ephedra and many other  
typical Lower Sonoran desert plants.

Only 0. Bortettia juv. in Covillea  
and 1 Eremopoda gracilis in  
hand but not.

Orth. 2 + 762 = 764.

Uther ins. 0 + 372 = 372.

---

1951.53 E. slope of Humboldt Mountains,  
Clark Co., Nevada. Elev. (approx.) 1000 feet.  
(R). VIII. 1. 1951.

Long silty slopes with many wash  
white gravelly material. Plants chiefly  
Covillea, scattered brush grass, etc.

No Q. except juv. Acrolophus beatus.

Grth. 2 + 764 = 766.

Grth ins 0 + 372 = 372.

---

1951.54 Slopes at west foot of Humboldt  
Mountains, Clark Co., Nevada. Elev. (approx.)  
2350 feet. VIII. 1. 1951. (R).

Plant cover chiefly Covillea, grass and  
cactus (in large part joint cactus).

Only Q. juv. Bostellia beatus from  
Covillea.

Grth. 2 + 766 = 768.

Grth ins. 3 + 372 = 375.

---



1951. 55 - Fifteen miles S. of Searchlight,  
Clark Co., Nevada. Elev. (aner.) 2400 feet.  
VIII. 1, 1951. (R.).

Covillea flat with whitish succulent  
branchy grass and Encelia (?) bushes,  
a little cacti.

Parabacillus - 1 juv. swept.

Proctotrupis - juv. + 1 ad., infrequent  
in Covillea.

Cibolensis, one on soil.

Crematopis grac. 1 juv. & swept  
from Covillea.

Usth. 5 + 768 = 773.

Uth. ins. 2 + 375 = 377.

---

1951. 56 North Slope of Searchlight  
Hills, Clark Co., Nevada. Elev. (aner.)  
3900 feet. VIII. 1, 1951. (R.).

Long wash slopes with Joshua trees, large  
yucca (baccata type), Encelia (?) and  
numerous other gray white bushes.

No U. except Trim. pallidip. on  
ground surface and Proctotrupis swept  
from Covillea.

Usth. 4 + 773 = 777.

Uth. ins. 1 + 377 = 378.

1951.57 Lower northwest slopes of  
Charleston Mts., below mouth of Kyle  
Canyon, Clark Co., Nevada. Elev. (an-  
ch.) 3325 feet. VIII.2.1951. (R.) [Hottest  
day]  
Long gentle slope largely with Covillea,  
and a scattering of ~~juniper~~ Joshua trees.  
No Q. except 1 Reithrix swept from Covillea.  
Arth. 1 + 777 = 778.  
Uther ins. 0 + 378 = 378.

---

1951.58 Kyle Canyon, Charleston Mts.,  
Clark Co., Nevada. Elev. (ch.) 5500 feet.  
VIII.2.1951 [Hottest day]  
Joshua Tree belt with Yucca, Atriplex,  
acacia and numerous other plants -  
a rich assortment of cover.  
No Q. except 1 Trin. pallidipennis taken  
on ground.  
Arth. 1 + 778 = 779.  
Uther ins. 0 + 378 = 378.

---

1951.59 Kyle Canyon, Charleston Mts.,  
Clark Co., Nevada. Elev. 6500 feet. VIII.2.1951.  
(R.) [Hottest day]  
Canyon wash and shoulders between  
channels of same. Plant cover largely

Mormon "juniper," a sprawling relatively soft bushy shrubs, some age, low condyphylis, etc.

Psychomastax, entirely in "juniper," much sweeping produced the limited number collected. While males seemed adults, all females apparently were immature.

Trimerotropis blue-leg. - very few on shrubby surface.

Peripatettix - a th. w. species, very local in the soft sprawling bushes. Males taken (2) brownish, females (2) greenish.

Atelophus, ad. ♂ of a gray species swept, but from what bush cannot be stated.

Maera truncellata (?) or a new species.

1 ♂ swept from Mormon "juniper."  
No more found, although careful search was made.

Acanthus sp. 1 ♂ of a greenish white color swept.

Utah. 17 + 779 = 796.

Utah ins. 35 + 378 = 413.

---



1951.60 Outwash slopes of Charleston Mts.,  
below Kyle Canyon, Clark Co., Nevada.  
Elev. (ch.) 3000 feet. VIII.2.1957. (R.)

[Below (i.e. lower) than 1951.57 of the same  
day.]

Clearly staked desert pavement with Covillea,  
etc.

No. C. caught 1 ad. + 1 juv. Bortettia caught  
from Covillea.

$$\text{Urth. } 2 + 796 = 798.$$

$$\text{Water ins. } 0 + 413 = 413$$

---

1951.61. Las Vegas Valley, 18 miles NW. of  
Las Vegas, Clark Co., Nevada. Elev. (an.)  
3000 ft. VIII.3.1957. (R.)

[Clouds & drizzly. No ground species  
to be seen in consequence.]

Long gentle slopes of N. side of valley with  
Covillea, yucca and some ~~grass~~ Joshua trees.  
Bortettia taken from Covillea.

$$\text{Urth. } 13 + 798 = 811$$

$$\text{Water ins. } 0 + 413 = 413$$

---

1951.62 Las Vegas Valley, 27 miles NW. of  
Las Vegas, Clark Co., Nevada. Elev. (ann.)  
3250 feet. VIII. 3, 1951. (R.).

[Overcast and drizzly.]

Common Covillea, yucca and Joshua trees.  
No ground forms seen. Only O. Portulicis  
except from Covillea.

Both. 10 + P+1 = 821.

Other in 0 + 413 = 413.

---

1951.63 Lee Canyon, Charleston Mts.,  
Clark Co., Nevada. Elev. (ann. 5800 feet).  
VIII. 3, 1951. (R.).

[Light rain all the time spent here.]

Joshua tree belt with maximum number  
in a given area. ~~Portulicis~~ <sup>Portulicis</sup> except in the  
Joshua trees, and all taken were secured  
by hand-work in them. Probably over 100  
individual Joshua were checked for the  
weevils were listed.

Aglaethorax 2 ♀ 1 ♂, all trekked down at  
the base of the leaves of the Joshua, relatively  
inactive, prob. due to the dull and drizzly  
day. One ~~male~~ female found singly, the  
♂ and then ♀ were in a single head of

1951.63 (cont.)

gishua.

~~gishua~~

Catolopus - a beautiful dove-gray species with a black dorsal line. A male and a female found on different gishua, fished deeply in between the lower leaves. More active and clumsier than Aglaothorax.

Capnodates viridis - a single female fished cross-wise in between a number of gishua leaves. It finally launched off in a fluttering flight, but was easily netted.

No ostracids seen were lost.

Length.  $6 + 821 = 827$ .

Other ins.  $0 + 413 = 413$ .

---

1951.64 Two miles N.E. of Crystal, Clark Co., Nevada. Elev. (ann.), 1900 feet. VIII. 4. 1951.

(R.)

Silly and gravel surface. Coriller, some Catolopus and other similar shrubs. Sole

O. 1 juv. Acrolophides nupt. + 1 ad.

Trin. pallidip. on ground.

Length.  $2 + 827 = 829$ .

Other ins.  $0 + 413 = 413$ .

---



1951.65 5 miles NW. of Moapa, Clark Co.,  
Nevada. Elev. (am.) 1650 feet. VIII.4.1951.  
(R.).

Silty wash of dry mud and fine gravel.  
Cotton mesquite, tumble weed and other  
species usual in washes.

Male O. ~~arizonae~~ integra on bare mud  
a flying insect. Very wary and active.

Unk.  $3 + 829 = 832$ .

Unk. ins.  $0 + 413 = 413$ .

---

1951.66 17 miles NW. of Moapa, Clark Co.,  
Nevada. Elev. (am.) 2525 feet. VIII.4.1951. (R.).

Long sloping banks of stony silt with  
open cover of creosote bush and other shrubs,  
plus a few yucca.

No O. except juv. Bortolinia reapt.

Unk.  $3 + 832 = 835$ .

Unk. ins.  $4 + 413 = 417$ .

---

1951.67 Kane Springs Wash, 31 miles  
NW. of Mospan, Lincoln Co., Nevada.

Elev. (aner.) 2700 feet. VIII. 4. 1951. (R.)

Silt flat along broad wash at base of  
relatively high bank. Chief com.  
Covillea and various types of brittle  
wash.

No C. at all except 17 Leucophaea  
empt from Covillea.

Orth. 1 + 835 = 836.

Other ins. 0 + 417 = 417.

---

1951.68 Near Maynard Hwy Lake, 46 miles  
NW. of Mospan, Lincoln Co., Nevada.

Elev. (aner.) 3300 feet. VIII. 4. 1951. (R.)

Broad wash between low slopes on  
both sides. Surface silty. Com. chiefly  
Covillea.

Only C. Bostetteri, ad. - juv. empt from  
Covillea and juv. Insara ditto.

Orth. 10 + 836 = 846.

Other ins. 6 + 417 = 423.

---

1951.69 Lower Pahranagat Lake,  
Pahranagat Valley, Lincoln Co., Nevada.  
Elev. ? (~~check manuscript chart~~) VIII. 4. 1951.  
[R.] 3000 ft. Road valley up.

In salt grass along east border of Lake.  
Urophodites adults & juvs. not numerous.  
Corymb. 1 juv. all seen.

Uroth. 18 + 846 = 864.

Uroth. ins. 11 + 423 = 434.

---

1951.70 5 miles S.E. of Nyko,  
eastern rim of Pahranagat Valley,  
Lincoln Co., Nevada. Elev. (an.), 4300 feet.  
VIII. 4. 1951. [R.]

Brush with Covillea & little brush.  
No Bortettia - tot. U. 1 juv. Inana  
on Covillea & 1 juv. Hagmonautis  
in same.

Uroth. 2 + 864 = 866.

Uroth. ins. 3 + 434 = 437.

---



1951.71 14 mile E. of Wyke, Lincoln  
Co., Nevada. Elev. (approx.) 5750 feet. VIII. 4. 1951.  
(R.).

Sketch of draw of 1st low range east of  
Hyko Range.

Strong salt with numerous lava fragments. Coarse, <sup>light</sup> throat sage and a low early bunch grass, and some Ephedra-like bushes.

Peruvian in latter, local.

Ustilophus vicinus from same. All over.

$$\text{Check. } 6 + 866 = 872.$$

After ins  $0 + 427 = 427$ .

1951.72 Lower W. Slope of Meadow  
Mountains, W. of Caliente, Lincoln Co.,  
Nevada. Elev. (approx.) 5700 feet. Vol. 4. 1905.  
(R)

In grassy tree belt. Examined a number of trees but only 1 seen with one black lined Abeloperla Coar.  
Weir took a

Records taken among wet chaparral forest.  
 Both  $\text{H} + \text{H} = 672 = 672$  inches.

~~Cost~~ in  $2 + 487 = 489$

1951.73 Meadows Valley, 4 miles N. of  
Caliente, Lincoln Co., Nevada. Elev.  
(am.) 4500 feet. VIII. 5. 1951. (R.)

Lower slopes of low hills and flat, former  
with relatively short rabbit weed & sage,  
latter (much moister ground) with  
tall and relatively rank rabbit weed.  
Cibolensis 1, all seed, <sup>very</sup> improved.

Trim. gracilis 1, all seed, ditto.

" pallidip 1. " " "

Neopentstix h. w. numerous in both  
types of rabbit weed.

Acanthos, 1 swept from tall rabbit weed.

Orth. 13 + 872 = 885.

Other ins. 2 + 439 = 441.

---

1951.74 4 miles N. of Panaca, Lincoln  
Co., Nevada. Elev. (am.) 5250 feet. VIII. 5. 1951.  
(R.)

Gradually sloping bank of stony gravel,  
with several species of rabbit weed, some  
sage and a little tumble-weed. Higher  
bank dotted with juniper.

Neopentstix local in rabbit weed.

Helian. sp. juv. swept.

Acanthos swept from rabbit weed.

Orth. 8 + 885 = 893.

Other ins. 6 + 441 = 447.

---

1957.75 3 miles N. of Pioche, Lincoln Co.,  
Nevada. Elev. 5900 ft. VIII.5.1957. (R.)  
Sage and rabbit weed (large and  
small species) flat, dotted with juniper.  
Some sage very low and almost mat-  
like.

Cordillanais, 1, all seen, taken on ground.

Agonostictus, a very fine, 1 ad. - 1 juv. taken,  
jumping into rabbit weed when  
disturbed.

Hesperostictus th. w. locally numerous in both  
types of rabbit weed.

Melan. - orange. species. 1 on ground, all seen.

" mus.? 1 ♀ in sage.

Uth. 14 + 893 = 907.

Cott. ins. 5 + 447 = 452.

1957.76 1 mile SE. of Jackrabbit, 13 miles  
N. of Pioche, Lincoln Co., Nevada. Elev.  
(ann.) 6000 ft. VIII.5.1957. (R.)

Open stand of Mormon "juniper"; Free juniper,  
sage and rabbit weed.

Agonostictus 1 (trapped).  
Hesperostictus 1 in Mormon "juniper" - 2 taken.

Suaeda 1 ♂, 1 ♀ separately flushed from  
holly-leaved shrub with hollow berry-like fruit.

Uth. 5 + 907 = 912.

Cott. ins. 1 + 447 = 448.

1951.77 Spring Valley 2.5 miles N. of  
Pioche, Lincoln Co., Nevada. Elev.  
(ann.) 6150 feet. VIII.5. 1957. (R.)

Juniper forest with sage in the more  
open places. Only a little Mormon  
"juniper" and this heavily grazed.

No Q. except Psychromastax except from  
latter.

$$\text{Orth. } 3 + 912 = 915$$

$$\text{Other ins. } 0 + 448 = 448.$$

---

1951.78 Spring Valley 2 miles N. of  
Gypsum Ranch, White Pine Co., Nevada.  
Elev. (ann.) 5975 feet. VIII.5. 1951. (R.)

Sage and rabbit used almost exclusively  
in brush (some miles across) valley.

Hesperotettix: juv. - ad. Melanoplus in  
rabbit used.

$$\text{Orth. } 6 + 915 = 921.$$

$$\text{Other ins. } 15 + 448 = 463.$$

---



1951.79 East base of Connor's Pass,  
Schell Creek Range, White Pine Co.,  
Nevada. Elev. (me.) 6625 feet. VIII.5.1951.  
(R.).

Open canyon with tall rabbit weed along  
wash, sage on slopes.

Hesperotettix th. w. local in rabbit weed.  
incl. sage sp. a few.

" aggar. max local.

Atractodes 1♂ swept from rabbit weed.

$$\text{Length: } 16 + 921 = 937$$

$$\text{Cottus in. } 0 + 463 = 463$$

---

1951.80 Summit of Connor's Pass, Schell  
Creek Range, White Pine Co., Nevada.

Elev. (hush mark) 7732 feet. VIII.5.1951. (R.)

Slopes with juniper and piñon, sage and  
rabbit weed, and in the summit. Small flat  
of the pass an area of very short grass like  
salt grass.

Amphitornus th. w. spec. 1♂ + 1♀. swept in  
the short grass area. Frank developed no more.

Cordulea 1 swept from ground.

Tenebr. pulch. 1 on ground - all seen.

" reddish bands. 1 on ground - all seen.

Cryptotettix undulatus - total of three seen, then  
lost, in more open ground among piñon.

$$\text{Length: } 6 + 937 = 943$$

$$\text{Cottus in. } 20 + 463 = 483.$$

SW.

1951.81 3 miles SW. of Ely, White Pine Co., Nevada. Elev. (aner.) 6900 feet. VIII.6.951. (R.)

# Hill slopes with open sage and short rabbit weed.

Cordillarius 1 juv. on ground.

Amphitomus local & scarce, on ground, long-winged.

Aganotethus few, 1 taken, on ground.

Heperiostethus th. w. locally numerous, usually in rabbit weed.

Melan. large sp. 1 ♀ swept.

" aur. type, few, in & about sage.

$$\text{Cuth. } 20 + 943 = 963.$$

$$\text{Cuth. in. } 5 + 483 = 488.$$

1951. F2 11 miles SW. of Ely, White Pine Co., Nevada. Elev. (aner.), 6700 feet. VIII.6.1951. (R.)

Juniper and piñon with open areas of short sage and rather low rabbit weed. Very little Q.

Aganotethus 1 on ground.

Aeroplides 1 swept.

Aeroboreus 1 on road, all seen.

$$\text{Cuth. } 3 + 963 = 966.$$

$$\text{Cuth. in. } 0 + 488 = 488.$$

1951. 53 Smith's Creek bottom, Indian Valley  
White Pine Co., Nevada. Elev. (approx.) 8700 feet!  
VIII. 6, 1951. (R.)

Barren dry mud areas, with other vegetation  
bearing Atriplex.

Acrochaetidae - a few on dry mud, 1 taken.  
Tricentrus littoralis 1 only, on dry mud.  
" canaliculatus a few on shells, 3  
taken.

Microstelia cas. 1 taken on mud but close  
to roadway.

Aedophris numerosus in Atriplex,  
but as usual - difficult to secure.

Orth.  $12 + 966 = 978$ .

Orth. no.  $0 + 488 = 488$ .

---

1951. 54 West side of Currant Creek  
Summit, Horae Range, Nye Co.,  
Nevada. Elev. (approx.) 6850 feet. VIII. 6, 1951.  
(R.)

Hill slopes with juniper + piñon and  
undergrowth of rabbit brush, some sage,  
an Ephedra-like plant and a little  
"Kroon" juniper.

Only 1 seen! Neopentstedia rust.

Orth.  $1 + 978 = 979$ .

Orth. no.  $2 + 488 = 490$ .

---

1951.85 Flat at E. base of Horse Mts.,  
White Pine Co., Nevada. Elev. approx. 6300  
feet. VIII. 6. 1951. (R.).

Low sage with scattered rabbit weed  
and / roadside only / Trumble weed, the  
whole dotted, park-like, with juniper.

Limonium 1 running on ground.

Cordillaria local and scarce, on  
ground, 2 taken.

Trin. pallidip. ?? On ground - 1.

Acrochordites 2 seen, 1 taken, on  
ground, very many.

Herpustethus - local in rabbit weed.

Utah. 10 + 979 = 989.

Utah ins. 0 + 490 = 490.

---

1951.86 Low hills in middle of John's  
Valley, 26 miles S.E. of Ely, Nevada.  
Elev. (approx.) approx. 6500 feet. VIII. 6. 1951.  
(R.).

Low hills, covered with sage, some  
rabbit weed, and Sarcobatus, and a  
little Atriplex.

Acrophids, 2 very diff. looking sp.,  
in Atriplex.

Trachys hirsuta type - one on pr., all seen.

Utah. 3 + 989 = 992.

Utah ins. 2 + 490 = 492



1951.87 Murray Summit, 5 miles SW. of  
Ely, Oyon Range, White Pine Co., Nevada.  
Elev. (bushy), 7316 feet. VIII.6.1951. (R.)

Sage and a few rabbit weed under  
juniper.

Almost no O.

Trinob. paucis 1 seen - taken, on ground.

Peromyscus delici. 1 ♂ on ground, all seen.

Orth. 2 + 892 = 894.

Orth. in. 4 + 492 = 496.

1951.88 Robinson Summit, 17.5 miles  
NW. of Ely, White Pine Co., Nevada. Elev.  
(b.m.), 7607 feet. VIII.7.1951. (R.)

Open sage slopes.

No O. except 1 <sup>Leptogaster</sup> ~~Hemiteles~~ montanus  
on ground.

Orth. 1 + 994 = 995.

Orth. in. 0 + 496 = 496.

1951.89 Near W. base of Robinson Summit,  
White Pine Co., Nevada. Elev. (un.) 6900 ft.  
VIII.7.1951. (R.)

Sage with several species of rabbit weed  
and a very little brush grass.

Trin. cyaneipes - 1 on tree trunk, all seen.

Myrmica montana h.w. in rabbit weed.

Urocyon montanus a very few, rather common.

Orth. 11 + 995 = 1006

Orth. in. 1 + 496 = 497

1951.90 Little Antelope Summit, Pogonip  
Ridge, 42 ms. W. of Calz., White Pine Co.,  
Nevada. Elev. (an.) 7452 feet. VIII.7.1951. (R.)

Sage and sparse rabbit weed.

All G. seen:

Cordillarius a few on bare spots.

Trim. fragilis - on ground, few.

Orth. 4 + 1006 = 1010.

Other ins. 3 + 497 = 500.

---

1951.91 Bottoms of flat between Pogonip  
Ridge and Panache Range, White Pine  
Co., Nevada. Elev. (an.) 6025 feet.  
VIII.7.1951. (R.)

Partly bare mud flat, with areas of low  
veg. some from the mud, and a little  
Atriplex.

Cordillarius, a few on bare ground.

Herotoma L. capit. a few, very local,  
on bare ground.

Trim. pallid. a few.

" fragilis - a number, all on bare  
ground.

Orth. 10 + 1010 = 1020.

Other ins. 0 + 500 = 500

---

1951.92 Pinto Summit, Fish Creek Range,  
E. of Eureka, Eureka Co., Nevada. Elev.  
~~(6. m.)~~ (6. m.), 7376 feet. VIII.7.1907. (R.)

Sage, some rabbit weed and quaked  
and Mormon "juniper." Some bare  
ground silty and stony.

No C. except 1 Peromyscus, all seen, on ground,  
and 1 Cordillarius on ground, as well as one  
Crisotethus undulatus, chased and lost.

Crits. 2 + 1020 = 1022.

Cater ins. 0 + 500 = 500

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1951.93 Devil's Gate, Fish Creek Range,  
8 miles NW. of Eureka, Eureka Co., Nevada.  
Elev. (ch.) 6000 feet. VIII.7.1900. (R.)

Narrow canyon bottom (drainage way) with  
sage, very large and robust rabbit weed,  
pickle weed and some Lithospermum.

Trin. latolata, 1 on bare ground - action.  
Hesperotethix - kept from rabbit weed.

Ceratophis 1 juv. kept from rabbit weed.

Crits. 9 + 1022 = 1031.

Cater ins. 2 + 500 = 502

---

1957.94 Near Twin Springs, at N.  
end of ~~the~~ Monitor Range, Antelope  
Valley, Eureka Co., Nevada. Elev. (ch.  
an.), 6150 feet. VIII.7.1957. (R.)

Very broad flat of sage and rabbit weed,  
with many considerable areas of bare  
dry mud, some smooth, others rough.

Neoperotetes <sup>th. w.</sup> occ. in rabbit weed.

Trin. bilobata 1 on ground, all seen.

With. 5 + 1031 = 1036.

Other vis. 7 + 502 = 509.

---

1957.95 East side of Toiyabe Range,  
below Austin Summit and 8 mi. E. of  
Austin, Lander Co., Nev. Elev. approx.  
7000 feet. VIII.8.1957. (R.)

Sage, some rabbit weed, etc. in open  
pinyon forest.

Only 0. ad - juv. Trin. cyaneipes  
- juv. Melan.

With. 5 + 1036 = 1041.

Other vis. 11 + 509 = 520.

---



1951.96 Austin Summit, Toriyabe Mt.,  
Lander Co., Nevada. Elev. (b.m.). 7054-  
7675 feet. VIII. P. 1951. (R.)

Sage brush slopes with many boulders,  
some rabbit used.

Cordillaris, a very few local, on ground.  
Xanthippus montanus, one, all seen, on  
ground.

Trin. cyaneipes, juv. only, on pr.

Melan sp.; juv. only, locally present.

$$\text{Birth. } 8 + 1041 = 1049.$$

$$\text{Other ins. } 0 + 520 = 520.$$

---

1951.97 Middle of Reese River Valley,  
7 ms. NW. Austin, Lander Co., Nevada.  
Elev. (a.m.), 5700 feet. VIII. P. 1951. (R.)

Alkali impregnated dry mud with short  
salt grass, Salicornia, and some  
rabbit used.

Trin. caeruleipes } Both locally on bare  
" pallidus } mud generally.

$$\text{Birth. } 5 + 1049 = 1054.$$

$$\text{Other ins. } 7 + 520 = 527.$$

---

1951.98 Railroad Pass, Shoshone Range,  
Lander Co., Nevada. Elev. (Ch.) 6431 feet.  
Aug. 8, 1951. (R.)

Typical sage with a low sage, many bare  
areas of silt & gravelly silt, often  
heavily crusted.

Cordillanais, a few local on bare pr.  
Hesperomys cupidinus. Local on  
bare pr.

Trim. bicolor, a few, on pr.

" facilis, very few, on pr.

Ammospermatus, local, on gravelly  
exposure near road only.

Mul. my tr. quies - (1951)  
Dist.  $16 + 1054 = 1070$ .

Utter no.  $0 + 527 = 527$ .

---

1951.99 Flat between Hecatoya and  
Shoshone Mts., 3 miles E. of Campbell  
Creek Ranch, Lander Co., Nevada.  
Elev. (un.) 6025 feet. VIII. F. 1951. (R.)  
Sage flat with much bare silt and  
gravel, and a very little rabbit  
weed.

1951 99 (cont.)

Only O. Trim. gracilis and T. bilobata  
on ground, all run taken, - juv. Melan.

Urb. 3 + 1070 = 1073.

Other ins. 6 + 527 = 533.

1951. 100 Carroll Summit, Heavyside Mts.,  
Churchill Co., Nevada. Elev. (b.m.) 7452-  
7500 feet. VIII. 8. 1951. (R.)

Steep slopes with sage, dotted with piñon.  
Small slides of broken rock.

Only O. a very few Trim. cyanipes,  
on ground, and Cinetix thalassina,  
chiefly on slide areas, active and wary -  
wind very high, hence capture difficult.

Urb. 5 + 1073 = 1078.

Other ins. 1 + 533 = 534.

1951. 101 Middle of 3 Valley between  
East Gate and West Gate, Churchill Co.,  
Nevada. Elev. (alt.) 7525 feet. VIII. 8. 1951  
(R.)

Sage and Atriplex almost exclusively.

Only O., a few Trim. bilobata and  
Aedopides infreq. in Atriplex.

Urb. 3 + 1078 = 1081.

Other ins. 3 + 534 = 537.

1951.102 Pass at N. end of Sand  
Springs Mts., 5 miles W. of Frenchman,  
Churchill Co., Nevada. Elev. (ch.) 4400 ft.  
VIII. 8. 1907. (R.)

Very sparse some of very dry Atriplex and  
other shrubs. No tall sage and small  
quantities of short, sun-cured cedar  
early grass.

No O. except Paropromela

most, presumably from grass.

Orth. 1 + 1081 = 1082.

Orth. ins 0 + 537 = 537.

---

1951.103 Salt Wells Junction, near  
Eight Mile Flat, Churchill Co., Nevada.  
Elev. (ch.) 3937 feet. VIII. 8. 1907. (R.)

Low salt dunes with little or no cover  
except spring prickly-leaf (?) Atriplex,  
often in solid clumps. Some Paropromela  
between often crusted and alkali  
impregnated

Trim. bilobata - 2 spec. / Taken, on ground  
Acrolophides in above bushes only, very common,  
diving into the interior of the clumps.  
Orth. 4 + 1082 = 1086.  
Orth. ins. 0 + 537 = 537.

---



1951.104 Four miles W. of Fallon, Churchill  
Co., Nevada. Elev. 3940 feet. VIII. 9. 1951. (R.)

Old field (formerly irrigated) of tall  
weeds, sunflower, etc. alongside of  
alfalfa field. Some bare silt.

Melan. mos. des., abundant.

" foedus, a very few.

Schist. vaga - several seen but mild and  
none taken.

Trim. sp. 1 on silt  
Coryza volvula. numerous on bare silt

Cloth. 21 + 1086 = 1107.

Uther ins. 2 + 537 = 539.

---

1951.105 Betw. Letchville and Hager,  
Churchill Co., Nevada. Elev. (an.) 3950 feet.  
VIII. 9. 1951 (R.)

Two conditions: dry pebbly silt with  
Atriplex and Sarcobatus; tall ridges in  
water or ~~damp~~ wet ground.

Amphitornus, 1 on dry ground, all seen.

Hex. des. numerous locally.

Coryza volvula, numerous on silt.

Cyphus pseudonistana 1 on ditto, all seen.

Oedopoda, water from both Atriplex

+ Sarcobatus.

Correphatus, from ridges only.

Cloth. 14 + 1107 = 1121

Uther ins. 3 + 539 = 543.

1951. 106 3 miles NW. of Fernley, Washoe  
Co., Nevada. Elev. (Bar.) 3900 feet. VIII. 9,  
1951. (R.).

Blackish sandy silt near the course of  
the Truckee River. Corn Saccolatus,  
Atriplex and sun-dried out grass.

Trin. villosa 1, all seen, on ground.

" pallidip. Numerous.

" red-legged. A few, local.

Tripidulus, a very few, flying into bush  
when frightened.

Acroplide numerous but hard to get in  
with Saccolatus & Atriplex, flying freely.

~~the~~ Melan. ~~fl.~~ Hemider species. Few, in  
Atriplex chiefly.

With. 17 + 1121 = 1138.

Other vis. 0 + 543 = 543.

---

1951. 107 4 miles W. of Wads worth,  
Washoe Co., Nevada. On bench above  
Truckee River. Elev. (Bar.) 4300 feet. VIII. 9,  
1951. (R.).

Rolling slopes of silt, pebbles and small  
stones, with open cover of Atriplex.

1951.107 (cont.)

Sarcobatus + some cured grass.

Parabellus, 1 swept.

Hagnumantis, 1 juv. swept.

Paropomala, very local in grass, but flying into other vegetation when disturbed.

Trim. red leg. - very few, on ground.

" pallidus - numerous.

Tripterus - 1, all seen.

Citharus - 1 ♂ in strong section - search for more produced no result.

Utter. 11 + 1138 = 1149.

Utter. no. 0 + 543 = 543.

---

1951.108 1 m. SW. of Verde, Washoe Co., Nevada. Elev. (am.) 5750 feet. VIII.9.1951.  
(R.)

Roadside strip of sage, a plant resembling chamise and also Mormon "juniper", and then low dry shrubs.

Mel. deserti abundant.

" cinereus, less frequent, none in sage.

Trim. cyanipes 1 in net, all seen.

Utter. 19 + 1149 = 1168.

Utter. no. 4 + 543 = 547.

---

1951.109 2 miles N. of Floriston, Nevada  
Co., California. Elev. (Am.) 5375 feet.  
VIII.9.1951. (R.).

In opening in tall pine forest, area of  
soft sage and various types of  
tall sun-cured grasses.

Coryza - numerous in pond.

Mel. desert. abundant in all situations.

Unth. 11 + 1168 = 1179.

Other vis. 0 + 547 = 547.

---

1951.110 Along Truckee River, 2 miles SW.  
of Truckee, Placer Co., California Elev.  
(Am.) 5400 feet. VIII.10.1951. (R.).

Broken rock and silt under sugar pines.  
Very few rabbit weed, chingripin and patches  
of dry cow cabbage.

Only O. Xanthippus montanus, seen.  
distributed but not common and Trim.  
cyaneus, very few.

Unth. 3 + 1179 = 1182.

Other vis. 4 + 547 = 551.

---



1951.111 Along Truckee River, 5 miles SW  
of Truckee, Placer Co., California. Elev.  
(unc.), 6075 feet. VIII. 10. 1951. (R.)

Open flat in pine and fir forest. Surface in  
large part broken lava rock, some largely  
tall sun-dried grass.

Trin. cyanipis - very few in rock areas.

Camnula locally swarming in prairie  
grass.

Length.  $10 + 1182 = 1192$ .

Water no.  $3 + 551 = 554$ .

---

1951.112 Near Zephyr Point, Lake Tahoe,  
Douglas Co., Nevada. Elev. (unc.) 6500 feet.  
VIII. 10. 1951. (R.)

Tall rank growth in open in pines, along  
a ditch of running water.

No C. except 1 ad. Mel. desertator in  
and no. juv. Trin. fibrigida, swept.

Length.  $4 + 1192 = 1196$ .

Water no.  $28 + 554 = 582$ .

---

1951.113 Middle Fork of Martin's Creek, S.E. of  
Truckee, Placer Co., California. Elev. (unc.)  
6500 feet. VIII. 10. 1951. (R.)

Among lava and granite boulders along  
dry stream course and banks. Very dry  
cow cabbage, sage, chingupin, etc.

Sole Q. - Trinor. false, clatter, local and  
not common; <sup>just Trin. cyanipes</sup> ~~Alighting in either~~  
bare dusty ground or low vegetation.  
Orth. 5 + 1196 = 1201.  
Other ins. 0 + 582 = 182.

---

1951.114 1 mile N. of Meyers, El Morado Co.,  
California. Elev. (am.) 6350 feet. VIII, 11, 1951.  
(R.)

Grasslands lush grass, weeds, wild straw-  
berries, etc., with spots of bare sandy soil.

Tetrix is very few, local on drier spots.  
Chamaea common.

Celastrus " but more localized  
in fuller grass.

Orth. 25 + 1201 = 1226.

Other ins. 9 + 582 = 591.

---

1951.115 3 miles S. of Meyers (just W.  
of Echo Summit), El Morado Co., California.  
Elev. (am.) 6550 feet. VIII, 11, 1951. (R.)

Dry mountain meadows, bare in  
places, in others tall grass and dry  
cow-cabbage & other plants. Little Q.

Mel. clavat. local.

Cratichneumon mont. m., all seen.

Orth. 6 + 1226 = 1232

Other ins. 10 + 591 = 601.

1951. 116 West side of Luther Pass, Sierra Nevada. El Dorado Co., California. Elev. (an.) 7700 feet. VIII. 11. 1951. (R.).

Mountain meadow surrounded by tall pines, just below actual pass. Luther pass in place, dry in other, sage in spots.

All O. sun. Trin. false dillies, a few, 6 Trin. Camula, local in pass.

Orth. 6 + 1232 = 1238.

Orth. 23 + 601 = 654.

---

1951. 117 Near Woodford, Canyon of West Fork of Carson River, <sup>virtually at</sup> east foot of Luther Pass, Alpine Co., California. Elev. (an.) 5640 feet. VIII. 11. 1951. (R.).

Opening in pine forest. ground chiefly decomposed granite gravel with a little silt. Low plant cover largely sage, much bare surface. Wind very strong, down the canyon.

Antennaria, 1 pr. running on ground.

Trin. cyaneus. Numerous.

Coronilla vallecula local.

Urtica montana - a small colony, much at least flushed from sage.



Mel. long sp. - 12 swept.  
Idemothera sp. - 14 flushed to ground  
from sage - very active.  
Orth. 121 + 1238 = 1259.  
Other ins. 0 + 654 = 654.

---

1951.118 3 miles S. of Centerville,  
Cannon Valley, Douglas Co., Nevada.  
Elev. (an.) 4900 feet. VIII.11.1951. (R.)  
Roadside thorn, in part dry and partly  
with water. Tall grass, sedges and  
cat tails.

Chorthippus local and not very common.  
Mel. des. Not common.  
Cnemidophorus abundant in <sup>sedges</sup> ~~water~~ grass.  
Orth. 35 + 1259 = 1294.  
Other ins. 14 + 654 = 668.

---

1951.119 Eagle Valley, 1 mile N. of Empire  
(3 miles E. of Cannon City), Archaic Co.,  
Nevada. Elev. (an.) 4750 feet. VIII.12.1951.  
(R.)

Sage with a little rabbit weed on  
silt and sandy silt, some places heavily  
mashed.

Cordillarius local, on sand.

Agrostis, a few, 1 taken.  
Trisetum, local, more frequent  
on silt.



1951.119 (cont.)

Conoza wallula, a very few.

Trin. albocornu? in red. fungus, 2 Taken.

Mel. nigr. sp. - not common, in fungus, flying into cage.

Length.  $15 + 1294 = 1309$ .

Wing.  $2 + 668 = 670$ .

---

1951.120 7 miles S.E. of Gardnerville,  
Houder Co., Nevada. Elev. (an.) 5000-5100 feet.  
VIII. 12. 1951. (R.).

Hill slopes covered with broken rock of all  
sizes, with some silt between. Scattered  
juniper and piñon with the low cover  
almost entirely rather low sage.

Trin. cyaneipes, 1, all seen.

Cicotetta thalassina, 3 seen, 1 Taken.

very many.

Legume 1 Taken, in fungus, all seen.

Length.  $3 + 1309 = 1312$ .

Wing.  $1 + 670 = 671$ .

---

1951.121 Hills 13 miles S.E. of  
Gardnerville, Houder Co., Nevada.

Elev. (an.) 6400 ft. VIII. 12. 1951. (R.)

On one side strong tilt under open sage.  
On the other juniper and piñon on

Very rocky slope. Nothing in latter. In  
former Thin. Cyanogaster relatively common  
on ground, and a single Agarostetia.

Uloth. 6 + 1312 = 1318.

Uloth. ins. 1 + 671 = 672.

---

1907.122 4.5 miles S of south end of  
Topsy Lake, Mono Co., California.

Elev. (approx.) 8400 feet. VIII.12.1907. (R.)

Gentle slope with sage and forested between  
with sun-cured oat grass.

Parm. aculeata, swept from oat grass.

Mutob. platterii type, few on ground.

Cnophora multula few.

Tram. ulbricensis, leaf, not common

" pallidip. 1 taken.

" Cyanogaster, a single one taken.

" californicus 1 taken, all recognized.  
Mel. divinator, a few only, could  
not get a male.

Uloth. 14 + 1318 = 1332.

Uloth. ins. 0 + 672 = 672.

---

1951.123 Devils Gate, 11 miles NW. of  
Bridgeport, Mono Co., California.

Elev. (ch.) 7519 feet. VIII.12, 1951. (R.)

Grassy meadow in rocky defile. Tall  
dry sun cured grass and scattered  
sage. Winds dry high.

Cammeula locally common.

Mel. mex. a few only.

Uth. 5 + 1332 = 1337.

Uth. inc. 0 + 672 = 672.

---

1951.124 Conway Summit, Mono  
Co., California. Elev. (b.m.) 8136 feet.  
VIII.12, 1951.

Hopes of tangled and heavily pruned  
(thrup) sage with some rabbit weed, and  
cow cabbage and tall grass.

Only U. - Trim. gravis - 1 seen - taken.

Uth. 1 + 1337 = 1338.

Uth. inc. 3 + 672 = 675.

---

1951.125 West side of Mono Lake,  
Mono Co., California. Elev. (am.) 8450  
feet. VIII.13, 1951. (R.)

Rough stony ground. Cow chiefly sage.

Crypt. Cratylus, a few.

Mel. fus. a few.

Orth. 4 + 1338 = 1342.

Other ins 0 + 675 = 675.

---

1951. 126 1 mile S. of Reining,  
Mono Co., California. Elev. (ann.) 6,750  
feet. VIII. 13, 1951. (R.)

Sage, sand huns and a few other shrubs  
in sandy silt or virtually pure sand.

Cordillanias, a few, very local, in virtually  
pure sand.

Conocoma, roadside silt.

Trimer. ~~albescens~~ albescens, a very few, one taken.

" tridentata, locally numerous,

" gracilis, but 1 seen - taken.  
flying into bushes.

Orth. 13 + 1342 = 1355.

Other ins. 0 + 675 = 675.

---

1951. 127 7 miles S. of Reining, Mono  
Co., California. Elev. (ann.) 7,100 feet.  
VIII. 13, 1951. (R.)

Almost entirely sage on sandy silt.

Trimer. albescens, few and local.

Mimulus platensis type, but 1 seen - taken.

Cordill. local - few.

Orth. 4 + 1355 = 1359.

Other ins. 0 + 675 = 675.



1951. 128 Headman's Summit,  
Mono County, California. Elev. (approx. m.)  
8041 feet. VIII. 13, 1951. (R.)

Surface grayish black gravelly sand,  
approx. volcanic in origin, under open  
stand of very tall pines. Wind very high.  
Trimer. false chattering, 1 all seen, Taken.

" albescens locally numerous, not  
very active.

Cratypedes monticola 1 taken, all seen.

Ultr. 12 + 1349 = 1371.

Ultr. vis. 3 + 675 = 678.

---

1951. 129 West side of Long Valley Reservoir,  
Mono Co., California. Elev. (approx.) 7200 feet.  
VIII. 13, 1951. (R.)

Sage brush with some rabbit weed and  
other shrubs.

Cordill. local on bare ground, not numerous.

Trimer. gracilis, very few.

" cymmeris, seen very active,  
flying into sage.

" albescens? not  
Cratypedes mont. 1 seen - lost.

Ultr. 11 + 1371 = 1382.

Ultr. vis. 0 + 678 = 678.

---

1951.130 One mile N. of Rums, Inyo  
Co., California. Elev. (an.) 4280 feet.

VIII.14.1951. (R.).

Alkali incrusted rough ground, with  
salt grass, sagebrush, Sarcobatus, a  
few rabbit weed and other shrubs.

Almost no ground C.

Amphispiza - a few, in one small colony.  
2 taken.

Upiza - 1 taken, no others actually winged.

Heurystellus long-winged - local in rabbit  
weed.

Orth. 14 + 1382 = 1396.

Other ins. 1 + 678 = 679.

---

1951.131 4 miles N. of Chalfant, Mono Co.,  
California. Elev (an.) 4800 feet. VIII.14.1951.  
(R.).

Very dry stone and silt (latter in washes)  
desert. Cover largely low spiny bushes,  
a few softer, no Sarcobatus or rabbit  
weed.

Heurystellus - 1 swept from ? No more  
taken.

Trin. albicoma, on stony surface, a few seen.  
2 taken.

" pallidip. (?) 1 taken on stony area.

Orth. 4 + 1396 = 1400.

Other ins. 0 + 679 = 679.

1951. 132 2 miles N. of Benton Station,  
Mono Co., California. Elev. (am.) 5400  
feet. VIII. 14. 1951. (R.)

Sage and an yucca-like plant on  
sandy silt with small stones.

No Q. except 1 Trim. albrechtsi.

Orth. 1 + 1400 = 1401.

Orth. no. 0 + 679 = 679.

---

1951. 133 Near old Inman's Station, Mono  
Co., California. Elev. (am.) 6500 feet. VIII. 14. 1951.  
(R.)

Hopos at north end of White Mountains,  
on way up to Montgomery Pass from west.

Sage with few rabbit weed.

Sole Q. 1 Thal. unguis Hesperisthes  
in rabbit weed.

Orth. 1 + 1401 = 1402.

Orth. no. 7 + 679 = 686.

---

1951. 134 Montgomery Pass, at N. end of  
White Mountains, Mineral Co., Nevada.  
Elev. (b.m.) 7123 feet. VIII. 14. 1951.  
(R.)

Sage and rabbit weed under open  
juniper and piñon.

Sole Q. 1 ♂ 1 juv. w. Hesperisthes in  
rabbit weed. No more could be located in  
exam. of several hundred bushes.

Orth. 2 + 1402 = 1404.

Orth. no. 11 + 686 = 697.

1951. 135 California - Nevada state line,  
north on Mono Co., Cal. side, 7 miles  
N.E. of Benton Sta., California. Elev. (approx.)  
6000 feet. VIII. 14, 1951. (R.)

Soft silt with frosting of small stones.  
Ings almost exclusively. All O. seen:

Trim. canulipes, 1 seen & taken.

" strumma, 1 seen & taken.

Count  $2 + 1404 = 1406$ .

Other ins.  $0 + 697 = 697$ .

---

1951. 136 1 mile S. of Benton Station,  
Mono Co., California. Elev. (approx.) 5775  
feet. VIII. 14, 1951. (R.)

Saline flat with Atriplex, Sarcobatus  
& rabbit weed.

Neopent. th. w., found in rabbit weed.

Melanopl. large species, taken in same.

Agaveotettix - 1 swept.

Count  $7 + 1406 = 1413$ .

Other ins.  $3 + 697 = 700$ .

---



1957. 137 Near Shady, Mono Co.,  
California. Elev. (an.) 4200 feet. VIII. 14, 1957.  
(R.)

Sage, Lithoxylus and rabbit weed, some  
sun-dried grass in Tufts.

<sup>Juv. Staphylinidae kept from coll. 10</sup>  
✓ Palopomela, locally numerous in sun-  
dried grass - very active and elusive.

Mesostethus long-winged. - in rabbit  
weed, locally numerous.

Acroplites - a few in Lithoxylus, Shady  
weird seemed no males.

Melanoplus sp. - a few taken from  
rabbit weed. None noticed in sage. Very  
active and elusive.

Grassh. 20 + 1413 = 1433.

Other ins. 1 + 700 = 701.

1957. 138 Near Rough Mt Springs,  
Inyo Co., California. Elev. (an.) 4300 feet.  
VIII. 15, 1957. (R.)

Sage with a very little Lithoxylus and rabbit  
weed. Area of pine grove.

Trim. caeruleus. - a few, one taken on  
Shingle.

Trim. strimma - 1 seen & taken on same.

Mesostethus long-w. - 1 kept from rabbit weed.  
Grassh. 3 + 1433 = 1436.

Other ins. 0 + 701 = 701.

1951.139 7 miles S. of Big Pine,  
Owens Valley, Inyo Co., California.  
Elev. <sup>approx.</sup> 10000 feet. VIII. 15. 1951.  
(R.)

Surface of two characters, one with  
many large loose boulders, and small  
flats of volcanic silt; the latter with  
some wind-blown sand. Other vegt., sage  
with some Atriplex.

Perotomima <sup>latic.</sup> 1 on silt only, flying into  
the wind.

Trin. strena - local on silt and  
sand, very active.

Trin. pallidip. 1 on sand.

Melanoplus gust. 6 caught.

Count. 8 + 1436 = 1444

Other in. 0 + 701 = 701.

---

1951.190 1 mile W. of Aberdeen, Owens  
Valley, Inyo Co., California. Elev.  
(am.) 13900 feet. VIII. 15. 1951. (R.)

Sage and rabbit-wind flat.

Neopent. th. w., swarming in rabbit  
wind.

Melanopl. sage sp. - in fair numbers  
in rabbit wind. No other G. seen.

Count. 72 + 1444 = 1516.

Other in. 1 + 701 = 702.

1951.141 6 miles N. of Lone Pine, Owens Valley, Inyo Co., California. Elev. (est) approx. 3900 feet. VIII. 15, 1951. [R.]

Flat with dry crusted alkaline mud, bearing short salt grass, largely <sup>in bunches</sup> ~~large~~ <sup>along a depression</sup> ~~large~~ Cuscuta integrifolia <sup>but</sup> ~~seen~~ <sup>in mud</sup>, one taken, exceedingly active.

Paropromela, locally numerous in both bunch grass and salt grass.

Cloth. 10 + 1516 = 1526.

Uther ins. 0 + 702 = 702.

---

1951.142 Alabama Hills, 3 miles N. of Lone Pine, Owens Valley, Inyo Co., California. Elev. approx. 4800 feet. VIII. 15, 1951. [R.]

Wind rounded and fissured granite knobs and points. Plant cover very ~~thick~~ thin - sage, some rabbit weed, a little dried poppy and other shrubs & ~~annuals~~ annuals. No Q. except 1 Mal. sp. taken from rabbit weed.

Cloth. 1 + 1526 = 1527.

Uther ins. 0 + 702 = 702.

---

1951.143 Betw. Inyo Mts. and Cozo Range, 8 miles NW. of Darwin, Inyo Co., California. Elev. (chart) 5000 feet. VIII. 16, 1951 [R.] Scattered cover of Atriplex, Koeberlinia and many other <sup>very</sup> dry and leafless bushes.



only 0:

Hymenocallis, 1 juv. mpt.

Aedopides 1 ♂, mpt.

Atilopius, 2 ♂♂ mpt from two different plants, one with leaves (out in full) resembling a small geranium, and the other a very different type.

Orth. 4 + 1527 = 1531.

Orth. ins. 0 + 702 = 702.

---

1951. 144 Shoulder of Argus Range,  
directly above Panamint Valley (on Cal.  
190), Inyo Co., California. Elev. (am. chart)  
5000 feet. VIII. 16, 1951. (R.).

Lava (basalt and reddish vesicular  
type) scattered on surface on top of a  
thick basalt topping. The deep canyon  
(1000+ feet) along side revealed a number  
of <sup>superimposed</sup> lava flows cut by erosion. Vegetation:  
Covillea, Atriplex (not hymenoclyta),  
and little else.

Tamocerus, 1 juv. mpt from Covillea.

Boottia, num. in Covillea.

1 Insana covilleae in net, mpt, but  
lost!

Orth. 18 + 1531 = 1549.

Orth. ins. 3 + 702 = 705.

---



1951.145- 4 miles <sup>NE.</sup> ~~W.~~ of Harwin, at NW.  
border of Angus Range, Inyo Co., California.  
Elev. (ch.) 3700 feet. VIII. 16. 1951. (R.)

Slopes chiefly clothed with Covillea and  
several species of little bush, little  
evident Atriplex. Ground surface largely  
covered with basalt and reddish vesicular  
lava fragments.

Only C. seen - Brattellia swept from  
Covillea

Arth. 5 + 1049 = 1054

Arth. ins. 0 + 705 = 705.

---

1951.146 Hill Hope N. of Mt. Ophir, 4 miles  
N. of Harwin, Inyo Co., California.  
Elev. (ch. & an.) 5100 feet. VIII. 16. 1951. (R.)  
Atriplex, Coeberlinia and many other  
very very low bushes. Many scattered  
proteas. No Atriplex hymenocarpa seen.

No C. except 1 Atelapha taken from between  
leaf bases on a head of protea.

Arth. 1 + 1054 = 1055.

Arth. ins.

+ 705 =

1951. 147 Flat 4 miles NW. of Harwin,  
Imyo Co., California. Elev. 5400 feet (ch.)  
VIII. 16. 1951. (R.)

Washes and clayey silt areas. Corn  
largely Atriplex. All D - two Trimerostema  
both in clayey silt.

$$\text{Orth. } 2 + 1555 = 1557$$

$$\text{Orth. inc. } 0 + 705 = 705$$

---

1951. 148. Near S. end of Imyo Range,  
Imyo Co., California. Elev. (ch.) 5000 feet.  
VIII. 16. 1951. (R.)

Bare sand with Atriplex and several  
other bushes.

No D. except 1 Anemone interna, taken  
on sand and followed after flying into  
bushes.

$$\text{Orth. } 1 + 1557 = 1558$$

$$\text{Orth. inc. } 0 + 705 = 705$$

---

1951. 149 Along nearly dry course of  
Chom's River, 4 miles P.E. of Lone  
Pine, Imyo Co., California. Elev.  
(ch.) 3700 feet. VIII. 16. 1951. (R.)

Tall grass, low salt grass and  
a little rabbit weed, and chamisa

1951.149 (cont.)

of what seemed to be around work. Much  
Hydr. addn.

Paropomala, local in both types of grass.  
Amphitornus, 1, all seen, on ground.

Cougar mullula, a few, roadside.

Melanophus sp., 1 ♀, in tall grass, all

Desmottia l. w., 100 in rabbit nest.

Unth. 13 + 1558 = 1571.

Unth. ins. 2 + 705 = 707

---

1951.150 3 miles S. of Olancha, Inyo Co.,  
California. Elev. (aner. - ch.) 3825 feet.  
VIII, 17, 1951. (R.)

Atriplex and similar dry brush, with  
the first Covillea seen in this direction  
(due S.), and scattered grasses.

No U. in Covillea. All seen <sup>12 taken</sup> 2  
Trin. albescens on sand silt in  
wash.

Unth. 2 + 1571 = 1573.

Unth. ins. 0 + 707 = 707.

---

1951. 151 Rose Spring, N. end of Rose Valley, north of Inyokern, Inyo Co., California. Elev. (ch.) 3500 feet. VIII. 17, 1951. (R.)

Covillea flat with dry brittle brush. Only 1 Boottellia after beating a considerable series of Covillea plants.  
Lith. 1 + 1573 = 1574.  
Other ins. 0 + 707 = 707.

---

1951. 152 Freeman, at east foot of Walker Pass, Kern Co., California. Elev. (ch.) 3400 feet. VIII. 17, 1951. (R.)

Covillea <sup>almost entirely</sup> ~~only~~. Boottellia, beaten from same, ~~only~~ one Paropoma rept.  
Lith. + + 1574 = 1578  
Other ins. 0 + 707 = 707.

---

1951. 153 Summit of Walker Pass, Sierra Nevada, Kern Co., California. Elev. (b.m.) 5250 feet. VIII. 17, 1951. (R.)

East side almost solidly Joshua, west side, except to. facing slope, pinyons. Joshua follow through



1951. 153 (cont.) the pass, for some miles <sup>to the W.</sup> on  
south facing slopes and warm flats,  
prunus on the reserve.

Work done on the immediate west  
side of summit. Low cover sage, some  
rabbit weed and other shrubs. Mid Spring

Trin. albescens local in fair numbers.  
Windy and wind made capture difficult.  
Trin. aestiva sp. 1 on bare ground.  
Microtus 1 juv. ♀, on relatively  
bare ground.

Utah. 5 + 1578 = 1583.  
Utah ins. 0 + 707 = 707.

---

1951. 154 Upper Kern River, 9 miles  
W. of Walker Pass, Kern Co., California.  
Elev. (an.) 3000 feet. VIII. 17. 1951. (R.)

Rabbit weed along irrigation ditch.

No Q. except 1 Hesperotettix C. W.,  
beaten from rabbit weed.

Utah. 1 + 1583 = 1584.  
Utah ins. 0 + 707 = 707.

---

1951. 155 Isabella, Kern Co., California.

Elev. (an.), 2450 feet. VIII. 17. 1951. (R.)

Very dry slope with typical California  
hills short sun-cured dry grass and  
scattered rabbit weed.

Only O. hesperotettix in latter. No  
brownish coloration of whole mites.

$$\text{Aeth. } 7 + 1584 = 1591.$$

$$\text{Aeth. inc. } 0 + 707 = 707.$$

---

1951. 156 5 miles W. of Old River,  
 Kern Co., California. Elev. (approx.) 340  
 feet. VIII. 18, 1951. (R.)

Roadside - rabbit and sun-cured  
 oak leaves, tumble-weed and a few other  
 shrubs. Exceedingly dry and dusty.

Parronema, scarce in grass.

Agrostotettix dianthus, local in grass.

Lepus, a few adults + juv.

Acrolophus, 1 pupa.

Melanoplus sp. juv. 1 pupa.

Hesperotettix, L. W. local in rabbit wood.

$$\text{Aeth. } 15 + 1591 = 1606.$$

$$\text{Aeth. inc. } 0 + 707 = 707.$$

---

1951. 157 2 miles SE of Tupman, Kern  
Co., California. Elev. (ann.), 315 feet.  
VIII. 15, 1951. (R.)

Tall bunch grass, rabbit weed and a  
few other things. Very dry.

Urolophus numerous, but very active,  
in grass.

✓ Paropornata common, but elusive,  
in the same.

Tripidulus, one, all seen, taken on bare  
ground.

Urolo. 12 + 1606 = 1618.

Urolo ins. 4 + 707 = 711.

---

1951. 158 Hills 6 miles S. of Maricopa,  
Kern Co., California. Elev. (ann.) 2425 feet.  
VIII. 15, 1951. (R.)

Hops with dry out grass and a few weeds -  
much bare ground.

Sub Q. - 1 Agonotettix sierrae, in grass.

Urolo. 1 + 1618 = 1619.

Urolo ins. 3 + 711 = 714

---

1951. 159 Cuyama Valley, <sup>17</sup> miles E. of Santa  
Maria, San Luis Obispo Co., California.  
Elev (an.) 1610 feet. VIII. 14. 1907. (R.).

Roadside - Fumelle - mud, ground  
runways, etc.

No C. except small Conozoa tuberosa,  
1 taken, 1 lost.

Catch. 1 + 1619 = 1620.

Catch no. 0 + 714 = 714.

---

1951. 160 Cuyama Valley, 10 miles E. of  
Santa Maria, San Luis Obispo Co., Cali-  
fornia. Elev. (an.) 700 feet. VIII. 14. 1951.  
(R.)

Roadside - silt (heavily Fumelled by  
gophers and pocket mice) and straggly  
pine woods, as well as completely  
dry types. Wind very high.

Only C. - Psolusca thomozeca,  
normal size, but 1 taken. Exceedingly  
active, and sailing long distances  
with the wind.

Catch 1 + 1620 = 1621.

Catch no. 1 + 714 = 715.

---



1951.161 6 miles S S E. of Santa Maria,  
Santa Barbara Co., California. Elev. (an.)  
600 feet. VIII. 19, 1951. (R.)

Roadside and <sup>the</sup> field. Nothing roadside.  
In field of dry wheat patches and straggly  
weedy composites (small yellow flowers).

Chenopodium fairly numerous. A few  
Conyza texensis on bare spots, 1 taken.  
Melan. sp. 1 juv. impt.

Arth. 13 + 1621 = 1634.

Cater. vis. 4 + 715 = 719.

---

1951.162. Los Alamos, Los Alamos Valley,  
Santa Barbara Co., California. Elev. (an.)  
700 feet. VIII. 19, 1951. (R.)

Roadside of tall weeds, alongside of  
cultivated fields. Sole C. are immediately  
brachypterous prodivinoid? - forms? from in  
color, unfortunately minimal. Search for  
more without results.

Arth. 1 + 1634 = 1635.

Cater. vis. 29 + 719 = 748.

---

1951.163 1 mile E. of Gaviota ~~Park~~,  
Santa Barbara Co., California. Elev. (an.)  
200 feet. VIII. 19. 1951. [R.]

Roadside windy area with scattered  
thrusting and tangled mass of fleshy  
beach plant. Footing difficult to  
maintain on account of holes and <sup>numerous</sup> dead  
plant stems.

Sole C. 1 ad. ~ 1 juv. Melanoplus kept,  
and a number of Uca kept.  
Cath. 8 + 1635 = 1643.  
Other no. 0 + 748 = 748.

---

1951.164 Near El Capitan, Santa  
Barbara Co., California. Elev. (an.)  
100 feet. VIII. 19. 1951. [R.]

Roadside, sun-cured out grass with the  
same fleshy beach plant as at 1951.163.

Sole C. <sup>2</sup> juv. specimens of Mel. decoratus,  
1 taken.

Cath. 1 + 1643 = 1644.  
Other no. 0 + 748 = 748.

---

1951. 165 1 mile E. of Carpinteria, Santa  
Barbara Co., California. Elev. (an.) 50 feet.  
VIII. 19, 1951. (R.)

Old field with out grass and scattered  
weeds. No C. except Urena nupt.

$$\text{Urb.} \quad 2 + 1644 = 1646.$$

$$\text{Urb. ins.} \quad 0 + 748 = 748.$$

---

1951. 166 Two miles E. of Camulos, Ventura  
Co., California. Elev. (an. + ch.) 875 feet. VIII. 20, 1951.  
(R.)

Roadside - bare ground and areas of fair  
weed, etc.

No C. except Conyza behrnsii on bare ground.

$$\text{Urb.} \quad 2 + 1646 = 1648.$$

$$\text{Urb. ins.} \quad 0 + 748 = 748.$$

---

1951. 167 Near Honby, Soledad Canyon, Los  
Angeles Co., California.  
Elev (an.) 1500 feet. VIII. 20, 1951. (R.)

(Santa Clara  
River.)

In broad sandy washes of Santa Clara River  
bed. Pure sand in spots.

Trin. californicus, local and very many.

Conyza behrnsii, local, near roadside.

$$\text{Urb.} \quad 5 + 1648 = 1653.$$

$$\text{Urb. ins.} \quad 0 + 748 = 748.$$

1951. 168 Mint Canyon, Los Angeles Co.,  
California. Elev. (an. & ch.) 2000 feet.  
VIII. 20, 1951. (R.)

Canyon bottom land with bare ground,  
very dry low growth of various species,  
including a Nolina with dead flower stalks  
as much as 8 feet tall. No rabbit and. No  
true desert elements in the vegetation.

Sole C, small Herotomus saucum,  
1 taken, on ground.

With. 1 + 1653 = 1654.

Other no. 0 + 748 = 748.

---

1651. 169 Near head of Mint Canyon,  
Sierra Pelona, Los Angeles Co., California.  
Elev. (an. & ch.) 3500 feet. VIII. 20, 1951. (R.)

Canyon floor and lower hill slopes, with  
corn largely very low chamise, in large  
part dead and dry.

Parabacillus in dead chamise, ♂ &  
females, ♀ seen and collected by hand.

Morone locally numerous in both dead and  
live chamise.

Agrotis sierrana, few & active, in  
chamise - on the ground.

Wegerstetia few in chamise, very active.

With. 28 + 1654 = 1682

Other no. 0 + 748 = 748.



1951. 170 2 miles N.E. of Vincent, Los Angeles Co., California. Elev. (su. - ch) 3000 feet.

VIII. 20, 1957. (R.)

Flowers found Moham. Very low and largely dead channels with thin mountain type bushes few with leaves - between low, rather flattened junipers. Much bare ground. <sup>very dry</sup>

Parabacillus swept from channels.

Morus few - very local, <sup>✓</sup> usually in dead channels.

Trinervia - cauduligennis, 1; all seen, on bare ground.

Urepsotellus, swept from channels and another from bush, few and local.

Orth. 8 + 16 + 2 = 1690.

Uther no. 0 + 748 = 748.

---

1951. 171 Between Lancaster and Palmdale, Los Angeles Co., California. Elev. (su.) 2600 feet. VIII. 21, 1957. (R.)

Rather heavy stand of Joshua trees with low cane between largely of leafless shrubs, in part very spiny. Red brown sand in many places.

Parabacillus swept from spiny bush.

Trinervia - californicus 1, all seen, no found.

Orth. 2 + 1690 = 1692.

Uther no. 0 + 748 = 748.

---

1951.172 3 miles NW. of Little Rock,  
Los Angeles Co., California. Elev. (an.  
+ ch.), 2650 feet. VIII. 21. 1951. (R.)

Tall roadside weeds and luxuriant  
rabbit weed, along dry ditch. Nothing on  
bare ground.

Chist. vinnata, juv. and larva in tall  
weeds.

Melanoplus sp., sev. in rabbit weed.

Neurostictus l. w., 1 in ditto

Uranthus, juv. in ditto.

Orth. 8 + 1692 = 1700.

Orth. ins. 1 + 748 = 749.

---

1951.173 1 mile E. of Little Rock,  
Los Angeles Co., California. El. (an.)  
2950 feet. VIII. 21. 1951. (R.)

Rock Mohave country with scattered  
~~joshua~~ joshuas and Covillea plus  
numerous dry spring bushes and a  
little brush grass.

In Covillea 1 ad. Portetia seen - lost,  
1 juv. Taken.

✓ Paropromela 1 in spring bush.

Orth. 2 + 1700 = 1702.

Orth. ins. 0 + 749 = 749.

1951.174 3 miles E. of Pleasant Springs.  
S. end of Mehan Desert, San Bernardino  
Co., California Elev. (ch.) 4150 feet.  
VIII. 21. 1951. (R.)

Joshua trees and junipers, with some  
rabbit weed and numerous other low  
bushes.

No. 11. except 1 Parastrephus swept.

Catch 1 + 1702 = 1703.

Catch ins. 0 + 749 = 749.

---

1951.175 Near Hoover, Cajon Canyon, San  
Bernardino Co., California. Elev. (an.)  
2000 feet. VIII. 21. 1951. (R.)

Canyon brush, with subsidiary bushes,  
many boulders, bare sandy areas, and  
trangles of chamise, some. Other shrubs  
and a few trees. ~~Some bushes~~ Mud High

Tram. californicus, numerous on bare  
sand, but very wary and flying, aided  
by wind, long distances.

Melanopl. sp. a few in bushes.

Idionotus, 1 single ♂ swept. No more  
could be located.

Catch. 5 + 1703 = 1708.

Catch ins. 0 + 749 = 749.

---



1954. 176 Rim Summit, So. Rim of San  
Bernardino Mountains (on highway Cal. 15).  
[2 miles S. of Argus Lake]  
San Bernardino Co., Cal. Elev. (6. m.)

5756 feet. VIII. 22, 1951. (R.)

Open spot in pine forest on overlook to S.  
Covered brush mostly, clumps of yellow-  
flowered rabbit weed, some tree-cumec  
rather short grass, and one other shrubs.  
Areas of bare granite gravel.

Amphispiza, 1, all seen, on gravel.

Tringa cyanocephala, numerous on bare  
areas, flying freely, marked color range.

Cratichneumon, a number, very active,  
on bare areas.

Rhacotettix, 1 ♀, H. picked it up from  
brush and rabbit weed (I saw the spot).  
all seen.

Platylabus 1 ♀ swept from?  
Chrysomitris th. w., locally abundant in  
rabbit weed, almost never taken out of it.

Cedrorhinus, apparently two species,  
a larger and a smaller one. Both in  
low ground, and sometimes in ground.

Ceanothus, a few juvs., swept.

Check.  $58 + 1708 = 1766$

Other ins.  $3 + 749 = 752$



1951.174 3 miles E. of Desert Springs.  
S. border of Mohave Desert, San Bernardino  
Co., California Elev. (ch.) 4150 feet.  
VIII. 21. 1951. (R.)

Joshua trees and junipers, with some  
rabbit wood and numerous other low  
bushes.

No C. except 1 Parabrycones swept.

Catch. 1 + 1702 = 1703.

Catching ins. 0 + 749 = 749.

---

1951.175 Near Hoover, Cajon Canyon, San  
Bernardino Co., California. Elev. (an.)  
2000 feet. VIII. 21. 1951. (R.)

Canyon brush, with subsidiary washes,  
many boulders, bare sandy areas, and  
tangles of chamise, yucca. Other shrubs  
and a few trees. ~~Some bushes~~ Mud Lgh.

Tram. californicus, numerous on bare  
sand, but very wary and flying, aided  
by wind, any distance.

Melanopl. sp. a few in bushes.

Thomomys, 1 single ♂ swept. No more  
could be located.

Catch. 5 + 1703 = 1708.

Catching ins. 0 + 749 = 749.

---

1954. 176 Rim Summit, So. Rim of San  
Bernardino Mountains (on highway Cal. 18),  
[2 miles S. of Arrowhead Lake]  
San Bernardino Co., Cal. Elev. (B.M.)

5756 feet. VIII. 22, 1951. (R.)

Open spot in pine forest on overlook to S.  
Covered brush mostly, clumps of yellow-  
flowered rabbit weed, some tree-cane  
rather than grass, and one other shrub.  
Areas of bare granite gravel.

Amphispiza, 1, all seen, on gravel.

Tringa cyanocephala, numerous on bare  
areas, flying freely, marked color range.

Cratichneumon, a number, very active,  
on bare areas.

Chalcid, 1 ♀, 1 ♂, picked it up from  
brush and rabbit weed (I saw the spot).  
all seen.

Platylabus 1 ♀ swept from ?

Chalcid Th. W., locally abundant in  
rabbit weed, almost never taken out of it.  
Chalcid, apparently two species,  
a larger and a smaller one. Both in  
low ground, and sometimes in ground.

Chalcid, a few juvs., swept.

Alt. 58 + 1708 = 1766.

Alt. 3 + 749 = 752.

1951.177 San Bernardino Mts., 4 miles  
(on Cal. 18 highway) E. of Running  
Springs, San Bernardino Co., Cal.

Elev. approx. 6700 feet. VIII. 22. 1951. (R.)

Pine and fir forest with many granite  
boulders, and low dense thickets, often  
mats, of chingquiu, manzanita and a  
spring bush.

100 O., 2 Moraga swept from man-  
zanita.

Alt. 2 + 1766 = 1768.

Alt. in. 0 + 752 = 752.

---

1951.178 3 miles E. of Fawnskin,  
near E. end of Big Bear Lake,  
San Bernardino Mts., San Bernardino  
Co., Cal. Elev. (am.) 6825 feet, VIII. 22, 1951.  
(R.)

Pine and fir forest, with undergrowth  
and var. other shrubs.

No O. seen except 2 Melan. sh. w.  
species, 1 taken, 1 lost.

Alt. 1 + 1768 = 1769.

Alt. in. 0 + 752 = 752.

---



1951. 179 Cactus Flat (N. slope of  
San Bernardino Mts.), San Bernardino  
Co., Cal. El. (an.-ch.) 5500 feet. VIII. 22, 1951  
(R.)

Pinon, juniper - Joshua trees (area  
now largely burned when compared  
with 1919). Under cover sage, rabbit  
weed, some chamise and an ephedra-  
like plant.

Fl. Q. rept: 1 Moxia, 1 Uedalmonstus  
Urb. 2 + 1769 = 1771.  
Urb. ins. 3 + 752 = 755.

---

1951. 180 3 miles E of Banning,  
Riverside Co., Cal. Elev. (ch.) 2200 feet. VIII. 23,  
1951. (R.)

Much disturbed roadside. Some chamise,  
much low, mat-like (prohibition to nets)  
acacia, and a little cactus - almost nothing else.

Stagmomantis, 3 juvs. in chamise (beaten  
out)

Melan. sp., 1 in ditto.

Uedalmonstus unguis, 1 in ditto.

Urb. 5 + 1771 = 1776.

Urb. ins. 0 + 755 = 755.

---



1951. 181 7 miles E. of Indio, Riverside  
Co., Cal. Elev. (an.), 220 feet. VIII. 24. 1951.  
(R.)

Gravelly and sandy wash slopes with  
scattered Covillea, pale verde and yellow  
leafless sun-cured bushes. Most of  
surface bare.

No C. except Bortettia except from  
Covillea.

Wash. 1 + 1776 = 1777.

Other no. 0 + 755 = 755.

---

1951. 182 13 miles E. of Indio, Riverside  
Co., Cal. Elev. (an.), 1450 feet. VIII. 24. 1951.  
(R.)

Heavy shingle on silt, with many inter-  
locking shallow or deep washes. Some  
cotillo, Covillea, pale verde, and other  
shrubs.

No C. seen except Bortettia except from  
Covillea.

Wash. 4 + 1777 = 1781.

Other no. 3 + 755 = 758.

---

1951. 183 Thaver's Summit, between  
the Eagle and Oroopia Mts., Riverside  
Co., Cal. Elev. (C. M.), 1700 feet. VIII. 24. 1951.  
(R.)

Heavily cut-up silt and gravel bench,

with many wash channels. Cover  
chiefly Covillea, a few pale oaks,  
some sun-dried, leafless shrubs.

John G. Bortolotto swept from Covillea.

Utah. 5 + 1781 = 1786.  
Other no. 3 + 758 = 761.

---

1951. 184 5 miles E. of Heart Center,  
Riverside Co., California. Elev. (approx.), 625  
feet. VIII. 24, 1951. (R.)

Multiple washes in silt, with stone  
permanent surfacing the flat areas. Acacia,  
juniper, some rabbit wood and a  
few pale oaks and other low shrubs.  
Nothing seen on ground.

Bortolotto + Wagner swept from  
Covillea.

Utah. 5 + 1786 = 1791.  
Other no. 1 + 761 = 762.

---

1951. 185 Road pass through Home Rock  
Mts., Yuma Co., Arizona. Elev. (approx.) 1000  
feet. (16 miles E. of ~~Heart Center~~ Ehrenburg)  
VIII. 25, 1951. (R.)

Broad stony washes with Covillea,  
pale oaks, acacia, etc. No G. except Bortolotto  
swept. (Acroloides seen - lost!)

Utah. 2 + 1791 = 1793.  
Other no. 0 + 762 = 762.

1951.186 4 miles <sup>8.</sup> W. of Quartzsite, Yuma  
Co., Arizona. Elev. (an.) 1000 feet. VIII. 25. 1951.  
(R.).

Broad areas of relatively smooth stony  
pavement on silt. Vegetation: Agave  
Coriacea, pala verde, acacia, etc.

Sole O., Portulaca, relatively numerous,  
and Lignostictis, much fewer, both swept  
from Coriacea. No trace of ground forms.

Urb. 20 + 1795 = 1815.

Urb. vis. 4 + 762 = 766.

---

1951.187 Western border of Raneyas Plain,  
2 miles E. of Plomosa Mts., Yuma Co.,  
Arizona. Elev. (an.), 1300 feet. VIII. 25. 1951.  
(R.).

Areas of stony pavement and broad stony  
washes. Low: Coriacea, acacia, cotillo, pala  
verde and much low desert vegetation - relatively  
few, cotillo in leaf and drains with low  
palm mats. Lebanthus, 1 swept.  
Portulaca, swept from Coriacea.

Mel. aridus, 18 swept from sun-cured low  
wash.

Crotalaria, 1 ♀ (1 leg), on stony pavement, all  
seen.

1 Fehisobacca vaga seen & recognized, but lost!  
Urb. 4 + 1815 = 1819.  
Urb. vis. 3 + 766 = 769.

---



1951. 188 4 miles E. of Wenden, Yuma  
Co., Arizona. Elev. (b. m.), 1795 feet.  
VIII. 25, 1951. (R.)

Roadside Corolla and Tall clumps of  
grass in roadside drain. Vegetation  
relatively poor.

Acrotylus juv. swept - few in dist. no  
adults could be located.

✓ Paropomala adults - juvs., chiefly latter,  
in tall grass only.

Portia, in Corolla.

Urtic. 22 + 1819 = 1841.

Urtic. vis. 4 + 769 = 773.

---

1951. 189 4 miles W. of Aguila,  
Maricopa Co., Arizona. Elev. approx.  
2300 feet. VIII, 25, 1951. (R.)

Roadside, relatively moist, vegetation  
relatively rich. A thick carpet of short  
grass, tall bunch grass, tall weeds, low  
marginals, ~~etc.~~ other grasses and flowering  
annuals.

✓ Paropomala numerous in bunch grass.  
few males.

Melan. sp. All juvs. in short grass.

Crematogaster: 1 ♀ swept in tall weeds.



1951. 189 (cont.)

Aquidollex, a few on ground.

Opria, a few in short grass, one taken.

Uths. 13 + 1841 = 1854.

Uther ins. 8 + 773 = 781.

---

1951. 190 4 miles E. of Aquila, Maricopa  
Co., Arizona. Elev. approx. 2300 feet. VIII. 25. 1951.  
(R.)

Luxuriant and rank grass and weeds  
along surface waters.

✓ Paropromela, 1 juv. all seen.

Aquidollex 1 on ground, one other seen.

Opria, in short <sup>but lush</sup> grass.

Uths. 7 + 1854 = 1861.

Uther ins. 22 + 781 = 803.

---

1951. 191 5.5 miles N. of Wickenburg,  
<sup>Yavapai</sup> Maricopa Co., Arizona. Elev. (an.), 2500 feet.  
VIII. 26. 1951. (R.)

Relatively rich and varied flora - Covillea  
(not many), palo verde, Koeberlinia, brush  
grass, low mats of annuals in flower and  
numerous other shrubs and bushes. Some sun-  
cured grass. No ground Q. except 1 Trin.  
pallidip. seen and lost. No Bostettia  
in Covillea.

Parabacillus, 1 swept from grass.  
Poecilotettix sauv., 1 in unidentified bush.  
Hesperotettix fus in a tall soft ephedra-like  
shrub.

Mel. andrus, a few in a variety of bushes.  
Eucana cor., 1 juv. swept from Couler <sup>adults & juv.</sup>.  
Ernephya abot., 1 swept from the  
same bush in which Hesperotettix was  
found.

Utah. 12 + 1861 = 1873.  
Utter in. 3 + 803 = 806.

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1957. 192 2 miles S. of Congress  
Junction, Yavapai Co., Arizona. Elev.  
(an.) 2950 feet. VIII. 26, 1957. (R.)

Many yellow-flowered low composites,  
bunch grass, acacia, tall soft ephedra-like  
shrubs, Fremont weed and low surface  
mats of annuals in bloom.

Syrphella fusco-vittata, a few. 1 taken, very  
active, when pursued flying into im-  
penetrable acacia.

Procladius f. prairie, local on bare ground.  
Cibicides, 1 juv. ~~on bare ground~~.

1951. 192 (cont.) Herot. l. latimictus, local on  
Trin. red. logged. 1 on road way, 1 other  
lost. Parasemula, local, in grass.  
Mel. audens? num. juvs., few adults,  
in various bushes.  
Cycloptilum, 1 swept.

Uths.  $22 + 1873 = 1895$ .  
Uthens.  $11 + 806 = 817$ .

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1951. 193 3 miles N. of Yarnall, Weaver  
Mts., Garza Co., Arizona. Elev. (Ch.) 4600 ft.  
VII. 16. 1951. (R.)

Mountain valley conditions. Much bare  
gravelly soil. Some largely holly oak  
scrub about 6-10 feet high, some manzanita,  
and much brush grass, both tall and low.  
Some woods along roadside & in drainage.  
Parabrycon, app. numerous, small series swept from  
Andellanus, a single female, on ground, all seen.  
Amphitornus, 1 ♀ on p. between grass tufts.

Mermiria texana, 1 taken, all seen, flying  
into heavy brush.

Agrostotettix, 1 taken on bare ground.

Emiza carinata, local, few taken, on  
relatively bare ground.

Melan. disp. 1 taken in heavy woods.

" pridens locally numerous, but in



varied habitats.

Mel. diff. 1 taken in heavy wood, all  
sun

Orth.  $32 + 1195 = 1927$ .

Orth. ins.  $4 + 817 = 821$ .

---

1951. 194 Peeples Valley, Weaver Mts.,  
9 miles N. of Yarnell, Yavapai Co.,  
Arizona. Elev. (ch. + an.) 4400 feet.  
VIII. 26. 1951. (R.)

Tall grass, sun flowers and other weeds,  
some Mormon "juniper", tall + low bunch  
grass, etc.

Parabacillus, 1 swept.

Syphus fusco-vittatus 1 ♂, all sun, in  
low cover.

Amphitornus locally numerous, usually  
on fr.

Agrostis, local, on ground.

Hedysarum 1 ♂, all sun, on ground.

Desmodium, few, in composites, but  
not in minority.

Melan. arvensis? not common.

Orth.  $19 + 1927 = 1946$ .

Orth. ins.  $23 + 821 = 844$ .

---



1951. 195 2 miles S.E. of Morristown, Maricopa  
Co., Arizona. Elev. (am.), 1825 feet. VIII. 27, 1951.  
(R.) [Monsoon-spitting rain.]

Covillea, tall sphaerocarp-like plant, pale verde,  
short grass and low shrubs.

Boottellia, 1 swept from Covillea, all seen.

Pygostellia, 1 swept from Covillea, 1 lost.

Hagmannia ad. ♀ swept from Covillea.

Melanophus sp. 1 in very low shrub. Only  
adult of genus seen.

Utch. 5 + 1946 = 1951.

Utter no. 2 + 844 = 846.

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1951. 196 1 mile E. of Pleasant Well, Maricopa  
Co., Arizona. Elev. approx. 1475 feet. VII. 30,  
1951. (R.).

Rain washed gravelly silt with scattered  
Covillea (no O. in them), a few pale verde, rabbit  
weed and other low plants, almost entirely along  
the shallow washes.

Only O: Paraburillus swept along the washes,  
and a few Opeia in that pass.

Utch. 4 + 1951 = 1955

Utter no. 1 + 846 = 847.

---

1951.197 1 mile S.E. of Apache Junction,  
Pinal Co., Arizona. Elev. approx. 1500  
feet. VIII.30, 1951. (R.)

Nearly flat silt plain. Some Covillea  
(not in it), a little rabbit weed and a  
low open shrub stand. All badly washed.  
Insects: Parabasilus <sup>juv.</sup> swept.

Melan. sp. ? juv. in low shrubbery.

Neurostictus, 1 swept from rabbit weed.

Orth. 8 + 1955 = 1963.

Other ins. 3 + 847 = 850.

---

1951.198 2 miles W. of Comet Peak,  
E. of Florence Junction, Pinal Co.,  
Arizona. Elev. (an. - ch.), 2000 feet. VIII.30, 1951.  
(R.)

gentle gravel slope with shallow washes.  
Comm: Covillea, pale verde, talcum, cholla  
and various shrubs and grass patches.

Boettgeria swept from Covillea, few.

Pterodroma swept from ground surface.

Tripidulus, 1 from thistle, all seen.

Melanopt. appar. decaulorum, juv. seen,  
adults few, in low shrubbery.

Crematopoda allof., 1 swept from low shrubbery.

Orth. 9 + 1963 = 1972.

Other ins. 4 + 850 = 854.

1951. 199 Oak Flat, Pinal Mts., between  
Superior and Miami (4 miles [road] N.E.  
of former). Pinal Co., Arizona. Elev.  
(ch. - an.), 4500 feet. VIII. 30, 1951. (R.)

Flat on east side of main ridge of Pinal  
Mts. Cover: scrub oak (chiefly), sotol, acacia,  
an cypripedium-like tall fern shrub, bunch  
grass, short grass - weeds, on a salt and  
silt shrubby base.

Cyrt. Juncus.

Paropromela local in Tall bunch grass.

Pedicularis <sup>f. purpurea</sup>, 1 swept from ground.

Cordillanella, 1 on ground.

Melan. sp. pins - few.

Collected 9 + 1972 = 1981.

Other ins. 0 + 854 = 854.

1951. 200 Road divide 1 mile N.E. of Pinal  
Ranch, Pinal Co., Arizona. (Just E. of Pinal -  
Pinal Co. line.) Elev. (ch.) 4600 feet. VIII. 30, 1951.  
(R.)

Jumbled decomposed granite boulders, in  
knobs and flats, with plant cover sotol,  
dactylisium, Pinus oak, the latter the chief  
element.

4. little evident.

Syntherisma fuscescens, 1 taken.

Melan. Texana 1 seen clearly - lost !!!

Collected 1 + 1971 = 1982

Other ins. 1 + 854 = 855.



1951.201 Flat N. of Copper Hill, 3.5 miles  
N.E. of Globe, Gila Co., Arizona. Elev.  
(alt) 6000 ft. VIII.30, 1951. (R.).

An arid dotted landscape, with tall  
and low brush pass, some out pass, ~~low~~  
low solid mass of junipers and various  
other low shrubs. Ground as a whole  
damp. Some areas of thistle.

Paratrillax swept from pass.

Pseudoceryle ditto, apparently both  
in same environment.

Yucinia 1 swept from ground on low corn.

Syrhula fusco-vittata, local, very active,  
flying considerable distances.

✓ Paropromala, a few in pass.

Ampithorax, in pass - on ground.

Chaperistella locally numerous, in  
var. plants other than rabbit weed.

were flying into acacia when pursued.  
Agrostella numer. juvs. as well as adults.  
on ground.

Cordillaria a few on lower spots.

Melan. sp. all juvs. in var. of crypt.  
both.  $51 + 1982 = 2033$ .

Other ins.  $8 + 855 = 863$ .



1951. 202 9 miles NE. of Globe, Gila Co.,  
Arizona. Elev. (am.) 4700 feet. VIII. 31, 1951.  
(R.)

Shoulder of finely broken red shale with sur-  
face mats of vegetation, some scrub oak and  
acacia, a little rabbit weed. Numerous bare areas.

Scrub furc utata, 1 ♂, all seen.

Proctos tr pusilla, chiefly on bare areas.

Conoza carinata, a few juvs. & 1 adult, on  
bare areas.

Trinotrops red-legged. Slightly on bare red areas,  
color very similar to habitat.

Anthrac 1 juv. swept.

Orth. 17 + 2033 = 2050.  
Other ins. 2 + 863 = 865.

1951. 203 South slope of Seven Mile Mts.,  
15.5 miles NE. of Globe, Gila Co., Arizona.  
Elev. approx. 5000 ft. VIII. 31, 1951. (R.)

Very sparse of short grass with scattered  
acacia and rabbit weed, on silt and  
stony silt. Nothing in rabbit weed.

Host 1 Trin. red-leg & 1 Heath glotus.

Cordell. a few in one spot on ground.

Proctos tr pusilla. Freq. on ground.

Conoza carinata 1 ad. & two juvs.

Trachyphachis leura type. Locally common.

Mesothrypa capita type. White on  
ground, but near throat grass.  
Mercuria h. latriminuta - numerous  
in particular areas on bare ground.  
Cuth. 26 + 2050 = 2076.  
Cuth. vis. 1 + 885 = 886.

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1951.204 Bench to N. of San Mito Mts.,  
29 miles NE. of Globe, Gila Co., Arizona.  
Elev. approx. 6000 feet. VIII.31.1957. (R.)  
Hence low rabbit weed and numerous  
other weeds & some shrubs in area of open  
juniper and piñon. Roadside ditch  
of rank weeds.  
Pseudotsuga, 17. Sept.  
Phrynosoma 1 spec., seen in cortex, on  
ground. Whitetailed search revealed no more.  
Melan. appar. desultorius, abundant  
and general.  
Mel. diff., 1 in roadside weeds.  
Proprotiter, abundant.  
Oecanthus, 10 Sept., numerous.

Cuth. 56 + 2076 = 2132  
Cuth. vis. 25 + 886 = 891.

---

1951.205 16 miles NE. of Salt River  
Crossing, Globe-Thow-Land Road, Pima  
Co., Arizona Elev. (an.), 1900 feet. VIII.31.1951.  
(R.)

Surface reddish silt and stony silt.  
Comm: open forest of knob holly oak, with  
some juniper; ground cover very short grass  
and low mud, much bare silt and stones.

Yucca, 1 running on ground.

Litanthis ditto

Paratanthis, 1 juv. swept.

Hydula fusco-retata, sev. of Tahara, active.

Poloma t. pusilla, juv. on ground.

Misthynus plattii eggs. - numerous &  
frequent.

Trichost. red-leg, 1. sv. lost, up.

Metaphys sp., very few, in low cover.

Neoprotax, 1 juv. swept.

Orth. 16 + 2132 = 2148.

Orth. ins. 4 + 891 = 895.

1951.206 5 miles NE. of Carigo, Navajo  
Co., Arizona. Elev. (an.) 5800 feet. VIII.31,  
1951. (R.)

Very damp reddish ~~silt~~ silt with numerous  
stones. Low shrubs and meadow cover with  
a close ground cover.



Yersinia numerous, running around,  
frequently jumping.

Retanentia, 1 run + lost.

Sydrula, fusco-vittata, a few.

Cordill., a few on ground, 1 Taken.

Uth. 9 + 2148 = 2157.

Other ins. 2 + 895 = 897.

---

1951 207 1 mile N. of Forestdale,  
Yavapai Co., Arizona. Elev. (an.) 6900 feet.  
IX. 1. 1957. (R.).

Tall grass - woods in tall pine woods.  
Early in day and very wet.

Nothing except larva of Oecanthus nymph.

Uth. 3 + 2157 = 2160

Other ins. 2 + 897 = 899

---

1951. 208 9 miles NW. of Forestdale,  
Yavapai Co., Arizona. Elev. (an.) 6075  
feet. IX. 1. 1951. (R.).

Open flat with juniper - tall pine on bordering  
slope to east. Surface - silt stream with  
small to medium-sized lava fragments.

Cover: short grass + low herbs.

Parasphincta 1 juv. nymph.

Yersinia not uncommon on ground.

Enitellus, several seen, 1 Taken, unpaired.

Cordillaris, 1 seen + taken, all noticed.

Uth. 9 + 2160 = 2169.

Other ins. 1 + 899 = 900.



1951. 209 Bench at rim of Cedar Canyon,  
10 miles SW. of Fort Huachuca, Yuma Co., Arizona.  
Elev. (am.), 6000 feet. IX. 1, 1951. (R.)

Short grass bottom & scattered juniper on  
reddish silt with many scattered stones.

Parastrephia 1 juv. swept.

Arenaria, swept from roadside tall yellow-  
flowered composites.

Urch. 6 + 2169 = 2175

Urch. no. 21 + 900 = 921.

---

1951. 210 5 miles SW. of Carrizo, Gila Co.,  
Arizona. Elev. (am.), 5625 feet. IX. 1, 1951.  
(R.)

Reddish silt with short grass bottom  
& scattered juniper and pine.

100 ft. C., 1 Condalia - 1 juv. red-pinked.

Urch. 2 + 2175 = 2177.

Urch. no. 0 + 921 = 921.

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1951. 211 11 miles SW. of Carrizo, Gila Co.,  
Arizona. Elev. (am.), 5925 feet. IX. 1, 1951.  
(R.)

Short grass and woody gladi-like opening  
in scrub oak with a few scattered tall  
pine. Also bunches of manzanita.

Parastrephia, 1 juv. swept.

Yucca, 1 on ground.

Trimerotropis red-leg, a few.

Mesobryana plattii-type, locally  
numerous, not at all shy.

Chalcidius brigitae, one very small  
colony in a limited section of a sandy  
old roadbed.

Melanophus sp. leg. 5, 1 male, all which  
could be located. 1 on pine bark chips on  
ground.

Melanophus blue legged sp. (decoloratus?)  
frequent, but not common.

Chalcidius rupt.

Utth.  $21 + 2177 = 2198$ .

Other ins.  $0 + 921 = 921$ .

---

1951. 212 Rim of Matanus Plateau,  
9 miles (road) S. of <sup>alt</sup> Gila River crossing,  
Gila Co., Arizona. Elev. (an.) 6025 feet  
1x. 1. 1951. (R.)

Woods stand of relatively low rabbit  
wood with little grass and small bare  
areas of silt and stones.

Yuccinia 1 taken on ground

Hymenopter linolata 1 ♀ rupt.

Pseudomorph, 2 ♂ rupt.

Mermiria recondens. 1 ♀, all seen,

flying vigorously, finally captured.

Chalcidius 1 on ground, all seen.

1951. 212 (cont.)

Aganostellus, a few on ground.

Andrena elliotti, a few, one on roadway.

Proterops delicatula, numerous, on the ground.

~~Step~~ Xanthopis corallipes - type, 1 battened female flushed from ground & captured.

Phygadeuon, local, a few, 3 ♂, 1 ♀ taken, on ground among shrubs.

Melanophus cakerius locally numerous.

" parwardi, a single one seen & taken.

" other sp. 1 ♀ taken.

" the legged (derelictus), a very few.

Phygadeuon abundant and everywhere.

Crab. 81 + 2198 = 2279

Other ins. 3 + 921 = 924

---

1951. 213 West side of Seven Mile Mountain,  
21 miles N.E. of Globe, Gila Co., Arizona.

Elev. (an.) 4350 feet. IX. 1, 1951. (R.)

Grass of short grass on silt,  
with many stones.

Yucca, 1 on ground.

Two aphidids, two on ground.

Metathymus phyllis - type, 1 taken.

Merotomus l. latirostris, local,  
two taken, very active.

Helicula rufa, about five seen, two  
taken, in bare areas, very local.

Brachyotus 1 juv. taken, all seen.

✓ Uth. 9 + 2279 = 2288.

Other ins. 0 + 924 = 924.

---

1907. 214 Cutter, 6 miles S.E. of Globe,  
Gila Co., Arizona. Elev. (am.), 4100 feet.  
IX. 2, 1907. (R.).

On silt with very low scattered mesquite  
cover, some rabbit weed, with scattered  
mesquite. Some bare silt.

Pseudoscorpion nupt.

Merotomus l. latirostris, one on bare silt.

Hesperotettix, local, not freq., in rabbit weed.

Melanophus sp., few in tall roadside weed.

Uth. 10 + 2288 = 2298.

Other ins. 10 + 924 = 934.

---



1951. 215 N. Slopes of Hayes Mts., 11 miles  
S.E. of Globe, Gila Co., Arizona. Elev.  
(am.), 4625 feet. IX. 2, 1951. (R.)

Slopes of silt and gravel with short grass,  
acacia, yucca, and yohim. Numerous small  
areas of bare gravel and rather fine  
thistle, reddish in color.

Pseudoeurycea, ~~several~~ <sup>one</sup> swept.

Podocorys t. parvula, very few, local.

Neotoma capita type, few in passy area.

Heliantha rupestris, very few, and extremely  
local on bare areas. Frequently did not  
jump and <sup>sometimes</sup> could be taken with hand,  
at others jumped and could not be touched.

Trachycharis sp., a number of juvs. no  
adults seen.

Catch. 13 + 2295 = 2311.

Utheries. 0 + 934 = 934.

---

1951. 216 8 miles E. of Coolidge Dam,  
Graham Co., Arizona. Elev. (am.) 3300  
feet. IX. 2, 1951. (R.)

Top of bench above reservoir. Silt filled  
with gravel & stones.

Silt C. seen Heliantha h. latissima

Catch. 8 + 2311 = 2319

Utheries. 6 + 934 = 940.

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1951.217 1 mile W. of Calton, <sup>Upper</sup> Gila  
Valley, Graham Co., Arizona. Elev. (approx.)  
2900 feet. IX. 2. 1951. (R.)

Mesquite, acacia and Covillea on adobe  
silt.

No U. taken were except from Covillea.

Rhabdometatus, 1 juv.

Musara covilleae, 1 juv.

No Bortolotto!

Uoth. 2 + 2319 = 2321.

Other inv. 1 + 940 = 941.

---

1951.218 9 miles S. of Safford, Graham  
Co., Arizona. Elev. (approx.) 3800 feet. IX, 2, 1951.  
(R.)

Mesquite, acacia and Covillea, with  
some rabbit weed and low dense ground  
mats of greenish-white flowered shrubs.

No U. taken except that taken  
from Covillea.

Rhabdometatus, 2 juvs.

Rhabdometatus, 1 ad. ♀ and 3 juvs.

in 2 diff. meters.

Acrolophus 1 ad. + 1 juv.

Musara covilleae 1 ad. ♂ + 2 juvs. in

diff. meters Uoth. 11 + 2321 = 2332

Other inv. 5 + 941 = 946

1951. 219 16 miles S. of Safford,  
Graham Co., Arizona. Elev. (an.), 4625  
feet. 1x, 2, 1951. (R.)

Area of tall whitish from early bunch  
grass with thin short grass and some  
rabbit weed, in an area dotted with  
cholla and a few mesquite.

Pseudosermyla a number of 33-14  
kept from the grass above described.

Paropomala relatively numerous in the same.

Trinotus. red-leg. on lower spks.

Hesperotettix but 1 seen taken.

Cerunquides absp. 14 kept from tall  
grass.

Cycloptilum 18 kept.

Utah. 24 + 2332 = 2356.

Other ins. 2 + 946 = 948.

---

1951. 220 West side of San Simón Valley,  
4 miles W. of Bowie, Cochise Co., Arizona.  
Elev. (an.), 3940 feet. 1x, 3, 1951. (R.)

Roadside, much disturbed for road  
road material. Weedy.

Sole Utah. juv. Melanoplus.

Utah. 0 + 2356 = 2356.

Other ins. 11 + 948 = 959.

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1951. 221 West side of San Simon Valley.  
10 miles W. of Bowie, Cochise Co., Arizona.  
Elev. (am.), 4225 feet. 1X. 2. 1951. (R.)

Tall bunch grass, rabbit weed, tooth  
weed and various other weeds. A few  
mesquite dotted over surface, also  
yucca and a few daisy-like.

Paratrillia, numerous in grass, females  
less frequent than males.

Boopis, females all immature, in  
various stages, males largely adult.  
In that grass and low weeds, dodging  
with agility and ~~or~~ crawling as well as  
jumping.

Argia 1 juv.

Trachymela 1 juv., all seen.

Paroplatia, none in tall grass.

Brachyptera 1 in water preceding maturity,  
endeavouring to hide in a bunch of  
low mesquite.

Macrostelia, locally numerous in rabbit weed.

Melanophus desertorum, several, some  
immature.

Phortaleia, a few, juv. only.

Desmanta, locally numerous, juv.

Unids.  $88 + 2356 = 2444$ .

Other in.  $7 + 959 = 966$ .



1951 222 1 mile N.E. of Willcox,  
Cochise Co., Arizona. Elev. (an.) 4200 ft.  
IX. 3. 1951. (R.)

Roadside, very tall bunch grass, tumble  
weed, etc.

Many juv. *C.*, few adults.

*Pseudoeurycea*, 1 ♂ swept from bunch grass.

*Paropromela*, sw. from ditto.

*Boopis*, 1 very small juv., all noticed.

*Melanophus* sp. 1 th. w. adult ♀ in low cover.

With. 5 + 2444 = 2449.

With. no. 13 + 966 = 979.

---

1951. 223 Willcox Playa, 5 miles SW. of  
Willcox, Cochise Co., Arizona. Elev.  
(ch.) ~~4300~~<sup>3800</sup> feet. IX. 3. 1951. (R.)

Coarse largely salt grass and tall bunch  
grass. No *C.* except:

*Pseudoeurycea* 1 juv. in ground.  
*Paropromela*, numerous.

*Uta* 1 ad. ♂ + others juv.

*Phrynosoma* 1 juv.

With. 21 + 2449 = 2470.

With. no. 3 + 979 = 982.

---

1951. 224 Sulphur Springs Valley, 6 miles  
S. of Cochise, Cochise Co., Arizona. Elev.  
(am.) 4225 feet. 2X, 3, 1951. (R.)

Short grass on <sup>whitish</sup> gravelly silt among  
groves of mesquite.

Most *C. immatura*, latter to adults  
as about 20 to 1.

*Litaneutria* 2 adults running on ground.

*Parasacilus*, 1 imp.

*Cordillensis*, local, on ground.

*Agonistella*, a few.

*Andrena* numerous, largely immatures,  
few males, females wild and  
shy.

*Protoparce*, juv. only.

*Lysichia*, 1 juv.

*Herotoma* *h. latimincta*, a few on ground.

*Tricentra* red. leg. a few, on bare ground.

*Heliola*, on a single bare area.

*Brachyptera*, 1 juv. all seen.

*Melanophila* "*regalis*" 1 ♂, all seen.

" *discontinua* 1 ♀. " " adult.

*Phortichia*, juv. only, a few.

Orth. 41 + 2870 = 2511.

Orth. vis. 5 + 882 = 887.

1951.225 Bowie, Cochise Co., Arizona.  
Elev. (b.m.) 3750 feet. IX.2.1951. (R.)  
All at light at night - all, however, on  
ground.

Catch. 0 + 2511 = 2511  
Other vis. 24 + 887 = 911.

1951.226 2 miles E. of Ulgas, San Simon  
Valley, Cochise Co., Arizona. Elev. (a.m.) 3600  
feet. IX.4.1951. (R.)

Chiefly Covillea, some Tall grass and weed  
patches. No Bortettia. Everything swept  
from Covillea.

Rhabdoceratites numerous, ♀♀ only;  
Encarsia covilleae, 1 ad. + no. of juvs.

Catch. 14 + 2511 = 2525.

Other vis. 1 + 911 = 912.

1951.227 1 mile W. of Vanar, upper  
eastern slopes of San Simon Valley,  
Cochise Co., Arizona. Elev. (ch.), 3850 feet.  
IX.4.1951. (R.)

Everything taken from  
Covillea entirely. No Bortettia.

Rhabdoceratites, num. <sup>mostly</sup> ad., nearly  
all females.

Encarsia covilleae 1 ad., all seen.

Catch. 17 + 2525 = 2542

Other vis. 0 + 912 = 912.

1957. 228 Valle de las Playas, 5 miles E.  
of Road Forks, Hidalgo Co., New Mexico.  
Elev. (an.), 4275 feet. IX. 4, 1957. (R.)  
Branch pass on otherwise <sup>dry</sup> dry mud plays.

Very little O:

Paropromela very scarce, few taken all  
year.

Cycloptilum, 1 inst.

Litanentria, 1 inst.

Orth. 4 + 2542 = 2546.

Orth. no. 0 + 912 = 912.

---

1957. 229 4.5 miles W. of Lordsburg,  
Hidalgo Co., New Mexico. Elev. (an.), 4500  
feet. IX. 4, 1957. (R.)

Covillea on silt with gravel & stone  
flopping. Nothing in Cov. except 1

juv. Lucania covilleae. Trim. pallidip.  
one on ground, another seen.

Orth. 2 + 2546 = 2548.

Orth. no. 0 + 912 = 912.

---



1951. 230. 2 miles W. of Continental  
Blonde, E. of Loper, Grant Co., New  
Mexico. Elev. (an.), 4520 feet. IX. 4. 1951.  
(R.)

Short curly semi-cured bunch grass, also  
taller bunch grass along shallow wash.

Pitcairnia 1 in short bunch grass.

Parastrephia 2 in same.

Hesperomera ? sp., 25 - 40 in tall  
bunch grass.

✓ Paropoma, local in short bunch grass.

Aulacoma in area of short bunch grass.

Urtica, a few juv. in short bunch grass.

Orth.  $21 + 2548 = 2569$ .

Urtica ins.  $4 + 912 = 916$ .

---

1951. 231 15 miles W. of Hennessey, Luna  
Co., New Mexico. Elev. (an.), 4500 feet.  
IX. 4. 1951. (R.)

Curly semi-cured bunch grass, low  
mesquite and various weeds.

Parastrephia sp.

✓ Paropoma a few in bunch grass.

Mel. decurtatus ? sp.

Orth.  $5 + 2569 = 2574$ .

Urtica ins.  $0 + 916 = 916$ .

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1951.232 5 miles E. of Heming, Luna  
Co., New Mexico. Elev. (am.) 4100 feet.

1x. 5. 1951. (R.)

Sandy silt, in places with a little  
gravel.

Nothing except Trin. pallidip. -

Herostoma h. latirivatum

[Kohn got 1 Trin. texana.]

$$\text{Grth } 2 + 2574 = 2576.$$

$$\text{Other ins. } 4 + 916 = 920.$$

1951.233 10 miles E. of Heming, Luna  
Co., New Mexico. Elev. (am.) 4050 feet.

1x. 5. 1951. (R.)

Covillea almost entirely.

Very few C. cycloptilum 1 swept from Covillea.  
Boottia very scarce in Covillea.

Atelopus (?) sp. 1 ♀ swept from ditto.

$$\text{Grth } 3 + 2576 = 2579.$$

$$\text{Other ins. } 0 + 920 = 920.$$

1951.234 16 miles E. of Cambray, Dona  
Ana Co., New Mexico. Elev. (am.) 4175  
feet. IX. 5. 1951. (R.)

Heavily pure sand in low dunes about  
mesquite clumps with scattered yucca  
and a few composites. Extensive areas  
virtually bare sand.

No fl. except a few Trin. Troxana  
on sand.

Orth. 2 + 2579 = 2581.

Other ins. 0 + 920 = 920.

1951.235 13 miles W. of Las Cruces,  
Dona Ana Co., New Mexico. Elev.  
(am.), 4300 feet. IX. 5. 1951. (R.)

Shallow reddish sandy silt or caliche.  
Cover: short bunch grass, low weeds and  
mats + low stands of mesquite on low  
dunes.

Sole fl. a few Trin. Troxana - very  
local.

Orth. 1 + 2581 = 2582.

Other ins. 2 + 920 = 922.



1951. 236 Between Mesquite and Vado,  
Homa Arca Co., New Mexico. Elev. (an.),  
3600 ft. 1X. 5. 1951. (R.)

Roadside vegetation, i.e. Atriplex, rabbit  
weed, numerous other Rio Grande  
bottom-land types, with small areas of  
bare silt.

Very few @.

Cycloptilum, 1 swept.

Melanoplus ? anides, 1 ditto.

Orth. 2 + 2582 = 2584.

Orth. ins. 5 + 922 = 927.

1951. 237 4 miles S.E. of Tornillo, El  
Paso Co., Texas. Elevation (an.) 3200  
ft. 1X. 6. 1951. (R.)

Bush edges with Covillea, some rabbit  
weed, mesquite & tall grasses, and near  
roadway various weeds.

Rhabdornathes, all juvs., latter common  
in Covillea.

Pseudoceryle, a few in rabbit weed  
and tall grasses.

Boottia infreq. in Covillea.

Cycloptilum several swept from same.

Orth. 25 + 2584 = 2609.

Orth. ins. 31 + 927 = 958.



1951. 238 Road pass between Finlay  
and Britman Mts., Hudspeth Co., Texas.  
Elev. (an. - ch.) 4500 feet. IX. 6, 1951. (R.)

Low pass with cover chiefly  
Covillea, black brush (Flourensia) and  
mesquite.

Rhabdosomatites <sup>juv.</sup> ~~ad.~~ swept from Covillea.  
Boottia ~~ad.~~ <sup>juv.</sup> in dirt.

Chumatodes, a single ♀ swept from  
Covillea.

[Goniation taken here by Kohler.]

Orth.  $21 + 2609 = 2630$ .

Uster. no.  $0 + 958 = 958$ .

1951. 239 4 miles W. of Sierra Blanca,  
Hudspeth Co., Texas. Elev. (an.) 4500 ft.  
IX, 6, 1951. (R.)

Open or scattered black brush (Flourensia)  
and low mesquite on gravelly silt.

Also small lots of short brown-cased  
brush grass.

Sole U. taken by J.R. 2 ♂ Erasmia  
virgata in brush - pass. Weeds all  
in black brush. [Kohler took Goniation.]

Orth.  $2 + 2630 = 2632$ .

Uster. no.  $3 + 958 = 961$ .

1951.240 3 miles W. of Eagle Flat, Hud-  
speth Co., Texas. Elev. (am. - ch.) 4275 feet.

IX, 7, 1951. (R.)

Com. Coriaria, black brush, Crotalaria,  
mesquite, tall <sup>thicket</sup> bunch grass - low shrubs.

Pseudomyle, 2 ♂♂ swept from short  
bunch grass.

Chorophanes 1 ad. ♀ ~ 1 juv. ♀ swept from  
tall bunch grass.

Bostettia not freq. in Coriaria.

Campylorhynchus 1 ♂ swept from black  
brush.

Orth. 11 + 2632 = 2643.

Orth. mis. 6 + 961 = 967.

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1951.241 Allamore, Hudspeth Co., Texas.

Elev. (ch.) 4625 feet. IX, 7, 1951. (R.)

Dense tall woods, wild ground, tall  
bunch grass, mesquite, etc. in wood.

Mermis mac, frequent, very wild, 1 juv.

also taken. Usually in tall bunch  
grass.

Tropidolophus lign on ground.

Melan hirsutus Feyer 1 ♀ in tall grass.

" lign a few adults, imm. juvs.

Orth. 19 + 2643 = 2662.

Orth. mis. 10 + 967 = 977.

1951. 242 5 miles S. of Van Horn, Culberson Co., Texas. Elev. (ann.) 3650 feet.

IX. 7, 1951. (R.)

Black brush in rather heavy stand, with areas of short scrubby brush grass & a little rabbit weed.

Trim. pallidip., 1 on tree ground.

Mel. hesperus type, 1 in black brush.

Campylomma 17 in " "

Heliozetes just 2 & 4. kept from black brush.

Cyrtopeltis, numerous in black brush.

Leath. 15 + 2662 = 2677.

Leath. vis. 4 + 977 = 981.

1951. 243 14 miles NW. of Valentine, Jeff Davis Co., Texas. Elev. (ann.) 3900 feet.

IX. 7, 1951. (R.)

Roadside tall brush grass.

Only 1, 1 ad. ♀ Blintheromys = 12 in.

Leath. 2 + 2677 = 2679.

Leath. vis. 7 + 981 = 988



1951. 244 7 miles SE. of Valentine,  
Jeff Davis Co., Texas. Elev. (approx.) 4600  
Sept. 18. 7. 1951. (R.)

Tall bunch grass, low bunch grass <sup>(partly new-growth)</sup> and  
some low weeds.

Parabairdella males relatively abundant  
in tall bunch grass, but 1 ♀ found.

Mermiria maulipi a few, 1 ♀ taken from  
tall bunch grass.

M. mexicana in same environment,  
flying long distances, particularly ♀♀.

✓ Syrtola fusco-vittata, 1 ♂ in low cover.  
✓ Cremnomanes vigata local in low bunch  
grass.

Boopis sp., new juv. kept.

Melanophus calurus, a few.

Phaethon, 1 juv. kept.

Arthropia local in tall grass, but 1 female  
taken.

Conocorypha virtually all immatures in  
tall bunch grass.

Leish. 56 + 2679 = 2735

Other ins. 14 + 988 = 1002.



1951.245 6 miles W. of Marfa,  
Presidio Co., Texas. Elev. (an.) 5000 feet.  
IX.7.1951. (R.)

[Work stopped by heavy storm.]  
Roadside pass.

Melanoplus sp. 1 specimen.

Catch. 1 + 2735 = 2736.

Catch no. 1 + 1002 = 1003

1951.246. Intersection of U.S. 90 and U.S. 67  
9 miles E. of Alpine, Brewster Co., Texas.  
Elev. (an.), 4475 feet. IX.8.1951. (R.)

Tall grass, both brush and wild stands,  
short brush pass, var. woods.

Parabacillus, 1♂, 1♀, kept.

Pseudoceryle, no. ♂, 1♀ kept.

Heiphysmona 2♂, 3♀, kept.

Pitaneutria, 1 ad. running on ground.

Mercuria mac., frequent, very few ♀♀,  
flying strongly.

Upeia, not common, on ground.

Aulocara 1 ad. + 1 juv. all seen.

Trachyrhynchus brun. ulap. very few.

Campylanthus, very few in woods, none juv.

Phostolites, chiefly immature.

Melanophus th. w. sp. few.

" long-winged sp. ditto.

Conocoryphus stratus ? 1 ad. ♂.

Ureanthus inimicus, nupt.

Cycloptilum, a single in nupt.

both.  $53 + 2736 = 2789$ .

other ins.  $19 + 1003 = 1022$ .

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1951. 247 4 miles W. of Marathon,  
Brewster Co., Texas. Elev. (an.), 4100  
feet. ix, t, 1951. (R.)

Tall grass, black brush, grass (low and  
usual brush type), mesquite.

some yuccas & var. other low plants.

Diaphoromera 2 ♂, 1 ♀, nupt.

Paratrillius " " " "

Pseudoscorpion 1 ♂ nupt.

Syrphula alticornis 4 ♂.

Merminia maurici 1 ♂.

Agonotettix 1 ♀ in low can.

Epis numerus.

Trachyschelus ovatus, not numerous.

Campylanthus, mod. numerous.

Melanophus laticornis common

" long-wing. very few

1957.247 (cont.)

Phantodites 1 juv. taken.

Conocaphus thirtus 1 ♀ mpt.

Ucaetia, common! mpt.

Uths. 45 + 2789 = 2834.

Uths. ins. 6 + 1022 = 1028.

Alchopetala

1 juv.

mpt

1957.248 5 miles S. of Marathon,  
Brewster Co., Texas. Elev. (an.)

3850 feet. 1 X. 8. 1957. (R.)

Mixed tall and low grass, some  
black brush, a little Covillea, a few  
mesquite, etc. Cochlidium, and  
numerous other shrubs and annuals.

Alapheromera 2 juv. ♀ mpt.

Parabailus 1 juv. mpt.

Pseudocorymbus, 2 ♂ mpt.

Bortettia a few in Covillea.

Campylacantha numerous, chiefly juv.

Hesperettia, a few.

Melanoplus laticornis numerous.

Paraidemona 1 ♀ taken.

Phantodites 1 juv. mpt.

Alchopetala 1 ad. ♂, 3 ♀ 1 juv. mpt.

Ucaetia 1 ♂, mpt.

Conocaphus thirtus, a few mpt.  
(over)



Cycloptilum, a few swept.

Orth.  $42 + 2834 = 2876$ .

Orth. ins.  $19 + 1028 = 1047$ .

1951. 249 1 mile S. of Twin Mills  
(Humble Windmill), Brewster Co., Texas.  
Elev. (an.), 2850 feet. IX. 8. 1957. (R.)

Tall grass, wilds, Covillea, low mesquite,

some very dry sun-cured composites, etc.

Elaphoglossum, ♂ & ♀, in fair numbers,  
swept from sun. plants.

Orthocentrus, in fair numbers in Covillea.

Mermis mariposa: 1 ♀, others seen.

Melampus laticornis 1 large ♂ & ♂ taken.

" laticornis ♂, 1 ♀ taken.

Campoplex abundant, chiefly  
adults.

Neurocrassus ? occasional, always  
in brush.

Parasitism ditto.

Agrocyba 1 ♀ swept.

Chrysomelids imm. common. adults very  
wild. [Chrys. took 1 ad. ♂. laticornis.]

Chrysomelids abundant. ♂ & ♀. swept.

Arctostaphylos, adults all ♀, imm. also  
taken.



1951. 249 (cont.)

Oecanthus numerosus, capt.

Cyrtopeltis communis, capt.

Arct.  $72 + 2876 = 2948$ .

Arct. ins.  $3 + 1047 = 1050$ .

1951. 250. "The Basin", Chisos Mts., Big Bend National Park, Brewster Co., Texas. Elev. (b.m.) 5500 feet. 1X. 9. 1951. (R.)

Small flats of sun-cured fall + low brush pass, with low mesquite, acacia, lechuguilla, a variety of cactus cacti, large agave, some yucca, etc. with grass-like stands or thickets of oak, piñon and juniper, all on the slopes or shoulders of the west draining canyon emerging through "the window." <sup>Arct.</sup> Arct. everywhere difficult. Arct.

Parabellus, 1 capt.

Pseudomugil, red. juv. capt.

Diaphanura, 1 juv. capt.

Synchlora <sup>Arct.</sup> fusca-vittata, juv., 1 taken.

Mormonia fixana, local + few, partial to lechuguilla, into the leaves of which it seems to take refuge.

Aphis pseudomirana, numerosus, not shy.

Lepus, local, and not particularly

active until pursued.

Mesobryana platter-type. local, usually  
on more stony areas.

Mesobryana capito-type. few, 1 ♂, 2 ♀  
taken.

Juv. vilioid - ?? Crematodid - very small  
was swept.

Melanophus sp. w. 1 ♂ in brush.

Phostolus, largely immatures

Agrotellix, 1 ♀ in tangle of vegetation.

Cyrtoptilus, 1 swept.

Chenanthus, 1 juv. swept.

Other ins. 6 + 1050 = 1056.

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1951.251. Ridge east of ~~the~~ Basin and down  
to east of Ridge, Chisos Mts., Big Bend  
Nat. Park, Brewster Co., Texas. Elev. 5600-  
5900 feet. 1X, 9, 1951. (R.)

Conditions as 1951.250 except  
larger areas of small stones and a  
narrow wash.

Parabacillus 2 ♂♂, swept.

Mermiria texana 1 ♀ in dense growth.

Syngaster fuscus-intacta, 2 ♂, active in  
grass clumps, flying considerable  
distances.

1951.251 (cont.)

*Opesia*, relatively numerous, <sup>about</sup> infrequent on  
stony areas.

*Artibeus* 1 ad. ♀ in same situation, numerous  
juv. - female.

*Hesperomys* numerous, in tall grass areas.

*Lepus*, a few only.

*Urocyon* *pandioniformis* a number, free flying.

*Neotoma* sp. 1 ♂ only seen & taken.

*Phrynosoma* 1 ad. - 1 juv. ♀  
*Phrynosoma* (?) 1 ♂, 1 ♀ taken.

*Crotaphytus* *auratus*, 1 ♂, 1 ♀ taken.

*Crotaphytus* a single juv. mpt.

Orth. 51 + 3005 = 3056.

Orth. 6 + 1056 = 1062.

1951.252 3 miles N.E. of Basin Headquarters,  
Chisos Mts., Big Bend Nat. Park, Brewster  
Co., Texas. Elev. (am), 5200 feet. 1x. 10, 1951.  
(R.)

Slopes and flats on north slope of mtn.,  
with sun-ward grass, dotted with

Fouquieria of low shr., juniper, piñon, <sup>Agave</sup>  
Fouquieria, agave, nolinae and numerous  
other shrubs.

*Litaneutria*, 1 juv. or female.

*Paradossomys*, 1 ♀ mpt.

*Parabrevillus* 1 ♂ mpt.

Uguis, numerous - active.

Micathyrus capito Type, several, on  
bare p. but near sun-cured grass.

Platylabus 1, all seen, on stony area.

Ephra, a number, long flying when  
frightened, in early AM (P. 20 AM)  
otherwise - Forpid.

Cycloptilum, a few, swept.

With.  $22 + 3056 = 3078$ ,

Other ins.  $0 + 1062 = 1062$ .

---

1951.253 10 miles N.E. of Basin, Chisos  
Mts., Big Bend Nat. Park, Brewster Co.,  
Texas. Elev. (am.), 3600 feet. IX. 10, 1951.  
(R.)

Stony lower slopes, largely of broken stone;  
plant cover total, yucca, low mesquite,  
cacti, lechuguilla, curly sun-cured grass,  
sphaera. Lick-throat and numerous other  
species. Few O.

Pseudoeurycea 1 ♂ + 1 juv. swept.

Paratrillia 1 swept.

Trimerotropis pallidip, 1 on bare area.

Micathyrus capito-Type - 1 all seen.

Cycloptilum 1 swept.

With.  $7 + 3078 = 3085$ .

Other ins.  $0 + 1062 = 1062$ .



1951. 254 15 miles N.E. of Bozine, Chisos  
Mts., Big Bend National Park, Brewster  
Co., Texas. Elev. (un.), 2750 feet. 1X. 10. 1951.  
[R.]

~~Forest section~~ Adjacent to the low brush  
flanking Tornillo Wash on the Chisos side.  
Hill and sandstone mesa, with Covillea,  
Echeverilla, Yucca, Agave, mesquite,  
grass. Limited amount of fl.

Rhabdomastix 1 ad. - 1 juv. swept from Covillea.  
Boettgeria, ads. - juvs. ditto.

Cycloptilum <sup>juv</sup> ~~the one~~ "

Chamaeleon 1 juv. ditto.

Unk. 19 + ~~3100~~ 3085 = 3104.

Other ins. 0 + 1062 = 1062.

---

1951. 255 East side of main Tornillo Wash,  
due E. of Rosillos Mts., Big Bend National Park,  
Brewster Co., Texas. Elev. (un.), 2625 feet.  
1X. 10. 1951. [R.]

Hill areas with <sup>patches</sup> ~~some~~ of stone thin fls. Cover:  
Covillea, cacti, Agave, Black brush, etc.

Boettgeria, swept from Covillea.

Cycloptilum ditto.

~~These~~ Tamias on ground (roadrunner in  
one case) in small groups in a variety of  
plants.

Unk. 15 + 3104 = 3119.

Other ins. 1 + 1062 = 1063.

1951. 256 1 mile S. of Perimeter Gap,  
Santiago Mts., Big Bend Nat. Park,  
Brewster Co., Texas. Elev. (ch.) 2700  
feet. 1x. 10, 1951. [R.]

just slope draining toward Minivillas Wash.  
Corillea, some low rabbit weed and much  
bare gravelly silt.

Bortettia, 1 imp from Corillea.

Cyrtopitulum, a very few ditto.

Hicopitula, 1 juv ditto.

Orth. 16 + 3119 = 3135.

Other no. 1 + 1063 = 1064.

---

1951. 257 1 mile N. of Perimeter  
Gap, Santiago Mts., Brewster Co.,  
Texas. Elev. (ch.) 2830 feet. 1x. 10. 1951.  
[R.]

Roadside Tall weeds - a dominant  
one prob. Solanum and other types.  
in a damp spot.

Blapheromus 1♂, 1♀, Tall weeds.

Pseudoscorpion, 1♂ imp.

Tamias 1♀ in Tall weeds.

Chistocoma, prob. vaga, 1 juv. in Panicum.

Lycopodium, common - several, but more  
partial to certain  
weeds.

1957. 257 (cont.)

<sup>- Phaeotettix?</sup>  
Phaeotettix, numerous, apparently more  
partial to the solanaceous-like weed.

Agrostotettix, 2 ♀, impt.

Melanoplus hirsutus type. In the taller  
weeds, very active.

Helicopetala 1 ♀, impt.

Eusara 1 impt.

Count. 43 + 3135 = 3178.

Other vis. 7 + 1064 = 1071.

1957. 258 4 miles N. of Twin Mills

(North Windmill) [N. of Chalk Blaw],  
Brewster Co., Texas. Elev. (ch. + sea),

2960 feet. IX, 10, 1957. [R.]

Roadside weed tangles in damp spot -  
a little standing water.

Chistocerca oza 1 ♂, 2 ♀ (one Terminal) and  
juvs. in their vistars. Free flying  
[adults] in tall weeds.

Campylacantha nummifera in various  
weeds.

Helicopetala impt. 3 ♀♀, 1 juv.

Arctocera impt. 3 adults.

Count. 23 + 3178 = 3201.

Other vis. 3 + 1071 = 1074.

1951. 259 5 miles N.E. of Maravillas  
Gap (<sup>either way</sup> 22 miles S. of Marathon), Brewster  
Co., Texas. Elev. (am. - ch.), 3500 feet.

1X, 10, 1951. [R.]

Roadside tall weeds with a few  
Coriaria, num. mesquite, etc.

Stagmomantis limbata 1 ♀ in heavy  
tangle.

Blaberus ♂ on Terminal of tall  
weeds.

Bolitoglossa, a few in Coriaria.

Uta, 1 on ground.

Melanophrynus lineatus, 1 Taken in tall  
weeds.

Anolis incolita, on Terminal  
of tall weeds, flew readily and  
for long distances.

Orth.  $14 + 3201 = 3215$ .

Orth. ins.  $7 + 1074 = 1081$ .

---



1951. 260 14 miles S. of Marathon, Brewster  
Co., Texas. Elev. (am.), 3850 feet. IX. 10,  
1957. (R.).

In small roadside drain, with <sup>very</sup> tall rank  
weeds, catclaw, Koeberlinia, some Trunk  
weed, etc.

Mermiria maud. 1 ♂.

Upeia 1 ♂ on ground.

Melamporus th. w. 1 ♂, 2 ♀.

Amelgomyia insidita 1 ♂, flying across  
road.

Hicropetala, in tall weeds, <sup>1 juv.</sup> 3 ♀♀ 1 juv.

Quaethus res. juv. - rupt.

Cycloptilum, rupt from web.

Uroth. 17 + 3215 = 3232.

Uroth. res. 6 + 1081 = 1087.

1951. 261 13 miles E. of Marathon,  
Brewster Co., Texas. Elev. (am.) 4260  
feet. IX. 11, 1957. (R.).

Very <sup>very</sup> stony shingle ~~with~~ and  
tall weeds and coarse grass in roadside  
drain.

Pseudocermyx, males abundant, a few  
females taken, in a variety of  
vegetation.

Parabrevulus, a single female swept.  
Chapheromus 2 ♂, 1 ad. ♀, 1 juv. ♀  
swept.

Mercuria mexicana common and  
flying vigorously.

M. macleayi a single female taken.

Eupus 1 ♀ on ground.

Campylacantha, a few.

Tropidolophus 1 ♂, all new.

Desmodictis, a few, very local, but  
not in rabbit weed as far as I could  
note.

Proctolites, several swept.

Melanophus long-winged, 1 swept.

" 2 th. w. species taken.

Chichopitula, 2 ♂ ♂ swept, ♀ with lacking  
one leg.

Conocybalus stritris, 1 ♂, 1 ♀ swept.

Theranthus, a few swept.

With  $69 + 3232 = 3301$ .

Other ins.  $8 + 1087 = 1095$ .

---

1951. 262 1 mile S. of Longfellow,  
Pecos Co., Texas. Elev. (un?) 3175 feet.  
18.11.1951. (R.).

Areas of tall sun-cured grass, & other  
tall grass still green, much short  
early sun-cured grass, low mesquite,  
a few Covillea, and areas of bare  
whitish gravelly tilt.

Elephasomus numerous in tall grass.  
Pseudomys " " " " " " " " " " " "  
Tall grass.

Peromyscus 1 nest.

Botulic, a few in Covillea.

Mermis texana a very few, 1 taken.

" maulii. 1 taken.

" monax. more numerous.

Syrphid auricornis, no. 1 taken.

Chrysanthemum 1 ♂ taken.

Cypripedium capito-like, 1 on p.  
Cypripedium, numerous on ground.

Phostalisia juv. num., few adults.

Pseudotettix? 1 ♀ taken.

Melanophus h. w. a few, both new taken.

Desmodium, a few.

Melanophus diff. a few, 1 taken.

Helicophila 1 juv. ♀ nest.

Arctostaphylos, 2 pp. mpt.  
Amelanchier laevis (?) 1 p. mpt.  
Conocarpus 1 p. mpt.

Arct. 51 + 3301 = 3352.

Other no. 0 + 1095 = 1095.

---

1951. 263 9 miles W. of Hryden,  
Terrell Co., Texas. El (an.), 2025  
feet. IX. 11. 1951. (R.)

Whitish stony surface of Fortson  
Plateau.

Scattered tall grass, mesquite,  
scattered shrubs of Covillea.

Bouteloua in Covillea, few.

Opuntia, few on ground.

Melanophloeus L. w. sp. 1 in tall grass.

Arct. 11 + 3352 = 3363.

Other no. 0 + 1095 = 1095.

---

1951. 264 3 miles S.E. of Langtry,  
Val Verde Co., Texas. Elev. (th)  
chuk! IX. 11. 1951. (R.)

Mesquite, a few Covillea + various  
other shrubs.



1957. 264 (cont.)

*Portulaca* 1 juv. in Conilla.

*Syntherisma* *auranti.*, 1 ♀. taken

Length.  $2 + 3363 = 3365$ .

Uterine inv.  $0 + 1095 = 1095$ .

---

1957. 265 7.5 miles E. of Comstock,  
Val Verde Co., Texas. Elev. (ch.) 1100 feet.

18.11.1957. (R.)

Low mesquite, brush with broad bean,  
yucca, ~~Daiglerion~~, <sup>small *Portulaca*</sup> low brush grass on  
broken limestone. [Wind very high -  
almost impossible to work.]

*Eliphrumena* 2 juv., kept.

*Portulaca*, 1 juv. in Conilla.

*Syntherisma* *auranti.* 1 ♂, 1 juv. ♀.

*Portulaca* *fix.* 1 ♀ on ground.

*Platyglaustris* 1 ♀ on low limestone.

Length.  $7 + 3365 = 3372$ .

Uterine inv.  $0 + 1095 = 1095$ .

---

1957. 266 21 miles N. of Del Rio, Val Verde  
Co., Texas. Elev. approx. 1600 feet. 18.12.

1957. (R.)

Roadside Fall, largely sun-cured,  
grass, low mesquite & other thorny bushes  
with an occasional yucca.

very dry.

Parabryllus, 1 specimen, impt.

Pseudocorymbus ~~1 ad ♂~~ 1 juv. ♀ - small  
juv. impt.

Syrphula austriensis 1 ♂, 1 ♀.

" admirabilis 1 ♂, 1 ♀.

Campylacantha, 1 ♂, 1 ♀ - imm. juv.

Both adults are long winged.

Ellochiptera 2 ad. ♂♂ - var. juv. ♀♀

Orth.  $26 + 3372 = 3398$ .

Orth. vis.  $5 + 1095 = 1100$ .

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1951. 267 10 miles SW. of Carter Valley,

Val Verde Co., Texas. Elev. (ann.),

1925 feet. IX. 12, 1951. (R.)

Roadside tall dry weeds and coarse  
grass, low mesquite <sup>and</sup> nearly bare broken  
limestone with sun-cured short <sup>erect</sup> grass  
and similarly cured taller bunch grass.

Syrphula admirabilis 4 ♂♂, numerous,

no ♀♀ seen. In grass area.

Mesochorus local on stony area.

Melanopterus sp. Th. - W. sp. 2 ♂♂, 1 ♀,  
in grass.

Campylacantha few.

1957. 267 (cont.)

Hieracitula 1 juv. only.

Pseudanthus var. noct.

Cycloptilum var. noct.

Vert. 24 + 3396 = 3420.

Water vis. 4 + 1100 = 1104

1957. 268 Carter Valley, Edwards Co.,  
Texas. Elev. (un.) 2006 feet. 12.12.1951.  
(R.)

Broken limestone surface with short grass  
comm., few patches of tall grass, under  
growth of low shrubs. Most adjacent areas  
completely grazed off. Very dry.

Syrphula 1 juv., all seen.

Pterocera 1 taken.

Cycloptilum var. noct.

Vert. 5 + 3422 = 3427.

Water vis. 0 + 1104 = 1104

1957. 269 Mid-way between Carter Valley  
and Rocksprings (17 miles from each),  
Edwards Co., Texas. Elev. (un.) 2400  
feet. 12.12.1951. (R.)

Very dry short grass and low, relatively  
dry, shrubs on low limestone.

Syrphula acuticornis 2♂, 1♀, in vesp.

Mesochorus, several, on lower areas

Cycloptilum, several swept.

Orth. 7 + 3427 = 3434.

Orth. ins. 0 + 1104 = 1104.

1957. 270 13 miles W. of Rocksprings.

Edwards Co., Texas. Elev. (am.), 2400

feet. IX, 12, 1957. (R.)

Roadside low curly grass and tall  
brush grass on broken limestone surface.  
Very dry.

Mesochorus a few swept from ground.

Syrphula 1 juv. only.

Orth. 5 + 3434 = 3439.

Orth. ins. 0 + 1104 = 1104

1957. 271 23 miles SW. of Junction,

Edwards Co., Texas. Elev. (am.), 2200

feet. IX, 12, 1957. (R.)

Short low-curved grass on broken limestone.

Syrphula 1 ♂, all seen.

Mesochorus, sev.

Orth. 3 + 3439 = 3442.

Orth. ins. 1 + 1104 = 1105.



1951. 272 6 miles N. of Junction, Kinney  
Co., Texas. Elev. (ann.), 1900 feet.  
IX, 13, 1951. (R.)

Roadside tall grass and weeds. [Weather  
blowing - overcast, cold with rain spots.]

Orth. 5 + 3442 = 3447.

Water no. 7 + 1105 = 1112.

1951. 273 3 miles N. of Menard, Menard  
Co., Texas. Elev. (ann.), 2250 feet. IX, 13, 1951.  
(R.)

Roadside grass and bare areas.

[Wet, cold and overcast.]

Leptothorax 1 juv. & 1 impt.

Microthos red. juv. impt.

Coryphocentrus 1 ad. ♂.

Aspidochelone 1 ♂ impt.

Orth. 5 + 3447 = 3452.

Water no. 11 + 1112 = 1123.

1951. 274 8 miles S. of Eden, Comanche Co.,  
Texas. Elev. (ann.), 2325 feet. IX, 13, 1951. (R.)

Roadside grass (short chiefly), weeds and  
bare broken limestone.

Pseudoeurycea 5 ♂ and 1 juv. & impt  
from grass.

Microthos juv. only, impt from ground surface.

Syrphula adonis. 1♂, 1♀ taken.

Agonostethus 1♂, 1♀ taken, all seen.

Campylomachus 2♂, 1 juv.

Melampus <sup>H.W.</sup> sp. wood brown. 1♂ kept.

" H.W. contracted color. 1♀ ditto.

Conocéphalus 1♂ kept.

Mesochorus? 1 juv. kept.

Orth. 21 + 3452 = 3473.

Orth. ins. 40 + 1123 = 1163.

---

1951. 275 11 miles N. of Eden, Comcho  
Co., Texas. Elev. (am. J), 1950 feet.

1x, 13, 1957. (R.)

Typical com. for open prairie of this  
area - short and long grass, low mesquite,  
cacti, etc., with bare spots of limestone  
fragments.

[Very little Q. Not clear, still ~~at~~ not  
yet a very cold - considerable wind.]

Syrphula, 1♂ taken.

Mesochorus juv. only, kept.

Aspilota 1 juv. on ground.

Cycloptilum, 1 kept.

Orth. 8 + 3473 = 3481.

Orth. ins. 6 + 1163 = 1169.

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1951. 276 Hatchel, 8 miles N. of Ballinger,  
Runnels Co., Texas. Elev. (an.), 1725 feet.  
IX, 13, 1957. [R.]

Tall coarse grass, low mesquite, various  
weeds on damp ground. [Horny  
cleaning.]

Syrphia admir. - antecornis, numerous  
and active - from very numerous.

Agrotis, 2 males, all over.

Opis 2 ♂, 1 ♀.

Hippodamia reptans 2 ♀♀ taken, a few  
others seen.

Conophorus Conophorus trinitas 1 ♀,  
mpt.

Neconophorus 1 ♀ in tall grass.

Urochroa mpt.

Pythia, on ground.

Grass.  $25 + 3481 = 3506$ .

Urochroa ins.  $7 + 1169 = 1176$ .

1951. 277 3 miles N. of Winters, Runnels  
Co., Texas. Elev. (an.), 1460 feet.

IX, 13, 1957. [R.]

Low yucca, tall brush pass, low grass, numerous  
composites, areas of damp soil.

[Cleaning.]

Syrhula adum. numerous.

Melanopterus fordersi-Type, a few, two females taken, strong flying.

Crithidia, 18 mpt.

Occanthus 1 mpt.

Orth. 8 + 3586 = 3594.

Usterius 8 + 1176 = 1184.

1951. 278 State Roadside Park 12 miles  
S. of Abilene, Taylor Co., Texas. Elev. (an.),  
2000 feet. 1X, 13, 1951. (R.)

In moist-high thin oak brush, yucca,  
catclaw and grass under scattered  
junipers, at the base of low hills. Some  
areas of virtually bare ground.

Syrhula anticomus locally common in Taylor.

Thermesia mainly a few only.

Argia 1 ♀ on bare ground.

Melanopterus th. w. wood brown sp. 1 ♀ - one juv.

In very dense Taylor, most diff. to  
run.

Melanopterus th. w. gray species. 1 ♀  
all run, also in heavy tangle.

[Chastotus sp. juv. several.

large larvae 1 seen, chased  
into juniper high up and finally



1907. 278 (cont.)

made a very long flight and could not  
be secured.

1000

Ans.  $21 + 3514 = 3535$

Costo inv.  $0 + 1154 = 1154$ .

1957.279 5 miles E. of Elmdale, Callahan  
Co., Texas. Elev. (Am.) 1900 feet. ix. 14, 1957.  
(R.)

Roadside fall woods, grass & sunflower.  
*Equisetum* adn. a few. <sup>very fine</sup> No.

Agrostis 1 taken.

Melanophyes f. - 2. 1 to 2 in.

Thomomys talpae Winters 1♂ 1♀ taken.

Ques. 6 + 3535 = 3541.

Other vis. 16 + 1184 = 1200.

1957. 280 3 miles E. of Pottsboro, Callahan  
Co., Texas. Elev. (arb.), 1600 feet. IX. 14.  
1957. (R.).

bluish sun-cured grass, tall grass  
winds and areas of dry packed tilt.

Pseudomurex 2<sup>10</sup>, 1 juv. ♀ murt.

*Muscivora* *Tras.* 1st *Father*.

Syrphia adam. inman.

" *centronis* J. B. F.

*Hesperis matronalis* L. var. *alba* L.

Hadrotettix fasciatus, 2 ♀♀ taken,  
all seen.

Campylacantha 1 ♀ 1 juv. all taken.

Neopenthetix speciosus 1 ♀ taken, all seen.

Melanoplus th. w. 1 ♂ taken.

Conophorus stratus 1 ♂ taken next.

Certh. 20 + 3541 = 3561.

Utter ins. 9 + 1200 = 1209.

1951. 281 4 miles E. of Ranger, Eastland  
Co., Texas. Elev. (approx.), 1250 feet. IX. 14,

1951. (R.)

Short grass and in low oak groves. Very  
dry, cactuses dying all about. Nothing  
seen except those taken.

Syrphula admir. 1 ♂, 1 ♀ taken.

Agrotis tellus a few on bare fr.

Campylomastix hypochlora alba 1 single  
male, all seen, taken by sweeping where  
there was no white tops.

Mesochorus num. juvs. on bare ground.

Certh. 14 + 3561 = ~~2575~~ 3575.

Utter ins. 0 + 1209 = 1209

1951. 282. 9 miles E. of Ranger, Eastland  
Co., Texas. Elev. approx. 1100 ft. 1X. 14. 1951.  
(R.)

Tall sticky yellow flowered sunflower like  
weeds, tall grass, thin grass, bare ground,  
etc. Very little C.

Syrphula ambrosiae 1♂, 2♀ taken.

" admirabilis 1♀ taken.

Melanophus luciae 1♂, 1♀ taken.

Campylacantha 1♂, 1♀ juv. taken, all  
clearly recognized.

Sundania 1♂ (both could be birds gone)  
Insect.

Conoclyptus sticticus 1♀ insect.

Orth. 10 + 3575 = 3585.

Orth. ins. 5 + 1209 = 1214.

1951. 283 11 miles SW. of Weatherford,  
Parker Co., Texas. Elev. approx. 1000  
ft. 1X. 14. 1951. (R.).

Open oak woods with grass and  
weeds, or a few bare spots. Very  
little except weasels & Syrphula.

admirabilis, which was common.

Campylacantha 1 ad. ♀ 1 juv., all seen.

Melanophyes diff. 1 ♂ in Fall under.

Cynoph. stritus 1 ♂ kept.

Orth. 16 + 3585 = 3601

Other ins. 0 + 1214 = 1214

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1952.1 Lake Sequoyah, 2 ms. NW. of Highland.  
Macon, N. C. Elev. 3680 feet. Aug. 13, 1952.  
(R.)

Roadside cut over area with blackberry, wild  
rose, Smilax, grass, etc., <sup>deciduous</sup> wood edge (largely  
tulip-poplar, and outcrops of bare granitic  
rock. Work very largely sweeping.

Homotettix 1 juv. nupt.

Chortophaga very small juv. nupt.

Hirsutiaria carolina a few - juv. nupt., none  
evident on bare rock areas - 1 juv. also taken

Melanoplus walshi 1 ad. ♀ - wood edge.

" viridis a few adult ♀♀,  
num. juv. nupt.

Melanoplus app. N. W. 1 ♂ - 1 ♀ juv.

Along wood edge. No adults seen.

Amblycorypha rotundifolia 1 ♀ nupt  
from unchanged forest foliage.

Orth.

19

Orth. inc.

51

1952.2 Along Cullasaja River, 3/4 m.  
below Hazy Falls, NW. of Highlands, Macon  
Co., N. C. Elev. 3240 feet. Aug. 13, 1952. (R.)  
Edge of mixed deciduous forest with a  
few white pine. Cover largely maple and

oak, some tulip.

Homotettix sev. adults + 1 juv. swept from  
mowed roadside.

Melanophus sp. - w. species with P. curv.

1 ad. ♂ + a few juvs. In limited area of  
low growth at forest edge.

App. longicornis

Scudderis 1 ♂ roadside.

Merulius juvs. ditto.

Orth.  $15 + 19 = 34$ .

Orth. ins.  $12 + 51 = 63$ .

---

1952. 3 Along Cullaraja River, 3 m.

below Dry Falls, ab. 5 miles NW. of Highlands

Macon Co., N.C. Elev. 2800 feet. VIII. 13. 1952. (R.)

Cut over roadside tangles.

Melanophus nelsi 1 ♂, all seen.

Conocyphalus juvs. (prosp. allardi) seen.

Orth.  $5 + 34 = 39$ .

Orth. ins.  $2 + 63 = 65$ .

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1952. 4 Borders of Lake Ravenel at Highland

Biological Station, Highlands, Macon Co.,

N.C. Elev. 3900 ft.  
Aug. 13, 1952

Along trails in lakeside forest of mixed  
deciduous trees and conifers. Understory  
heavy, tall rhododendrons in places,

1952.4 (cont.)

blackberry tangles in them. A few old tall chestnuts alive, numerous low saplings of same.

Sole U. 1 ad. ♀ Mel. natchi in a small sunny spot with blackberries.

leth.  $1 + 39 = 40$ .

leth. ins.  $20 + 65 = 85$ .

1952.5 Along Cullasaga River 1.5 miles N. of Highlands, Macon Co., N. C. Aug. 14, 1952. Elev. 3720 feet. (R.) very wet.

Roadside edge of ~~tall~~ hemlock and mixed deciduous forest.

Nothing adult exc. 1 ♂ Melanophus fimbriatus. Juv. of same, lucidus & of the same sp. w. species as taken yesterday. Nonotettix & Tettigidea both repr. by juvs.

leth.  $11 + 40 = 51$ .

leth. ins.  $18 + 85 = 103$ .

1952.6 Near Upper Ravenel Lake, 4.5 mi. NE. of Highlands, Macon Co., N. Car. Elev. (am.) 4150 feet. Aug. 14, 1952. (R.)

Cut-over oak scrub, with sassafras, bracken, Smilax - often red, also forest

edge (mixed decid.) and wood road borders.

Titlignidea 1 ad. <sup>1 juv.</sup> kept.

Chloromorpha 1 ♂, 1 ♀, taken separately.

Chlorocallis canop. 1 ♂ in tangle - no more could be located.

Asphidia sp. 1 juv. kept.

Mel. walshi 1 ♀ near Blackberry tangle. 1 ♂ seen & lost.

Mel. th-w. (prob. longicornis). A few adults [3 ♂, 1 ♀] some juvs. local & not numerous.

Mel. lucidus ?. juvs only.

Sudderia sp. 1 ♂ kept. No juvs. of genus seen but not taken.

Amblycorypha rotundifolia 2 ad. ♂ kept.

Conorhaphus 1 juv. kept.

$$\text{Crotch } 24 + 51 = 75$$

$$\text{Other inv. } 15 + 103 = 118$$

1952. 7 Horse Cove, 4 ms. E. of Highlands  
~~Bladen~~ Co., N.C. Elev. 2940 feet. Aug.

15. 1952. (R.)

In open, cut-over mixed hardwood and pine woods, with open spots and adjacent fields. Much intrusive weedy growth.



1952.7 (cont.)

*Nemotelix*, a few in drier, more open spots.

*Tettigidea* sp. juv. 1 mpt.

*Arphia* juv. 1 mpt.

*Cnemidophorus* *brevis*. 1 ♀ in <sup>tall</sup> grass.

*Uchulium* *vulgaris* 1 juv. ditto.

*Decantherus* + *juv.* mpt.  
Cuth. 88 + 75 = 83

Uther vis. 15 + 118 = 133.

1952.8 Base of Little Bear Mountain, 3/4 m. N.  
of Highlands, Macon Co., N.C. Elev. 3900 feet.  
Aug. 15, 1952. (R.)

Edge of forest area, decid. - pine, with  
patches of sunny clearing.

*Cryptorhynchus*, 3 in decaying log, apparently  
an old chestnut? All seen after <sup>juv.</sup> *Loricidius*  
mth.

*Mel.* th.w. species. 1 ♀ forest edge.

Cuth. 4 + 83 = 87.

Uther vis. 2 + 133 = 135

1952.9 Along U.S. 64, 3/4 m. above Short Off  
Church, 3.5 miles <sup>NE</sup> from Highlands,  
Macon Co., N.C. Elev. 4000 feet. Aug. 15, 1952.  
(R.)

A dry sphagnum bog and old fields  
grown with various grasses and tall

woods, and largely carpeted with wild  
strawberry, scattered planted pines.  
Bordering woods pine and mixed  
deciduous.

Homotettix a few, swept.

Leptoclella pallid. 1 ♀ in old field.

Encyrtotrophus indidens 1 ad. & imm. juv.  
in old field.

Chloraltis crispus 1 ♀ in old field.

Mel. lucida 1 ad. ♂. ditto

" femoratus 1 ad. ♂. 1 ad. ♀. juv.  
ditto.

Mel. tribulus local but more general  
than following - in old field, but  
usually near wood edge. 3 ♂,

Mel. decoratus 1 ♂. colony in old field.  
<sup>4 ♀.</sup> <sup>Triang. took a number.</sup>

1 both 2 ad. ♂ and 4 ad. ♀. Triang  
took a number.

\* Amblonyx ret. 1 ♀. swept.

Sudderia fusca 1 ♂ in old field.

" curvicauda 1 ♂ " "

" fasciata 1 ♀ flushed in  
old field, alighted in pine.

Archelimum 1 juv. swept.

Nematus fasc. 1 juv. swept

1952.9 (cont.)

$$\text{Orth. } 38 + 47 = 125.$$

$$\text{Other ins. } 2 + 135 = 137.$$

1952.10 Lake Fairfield, 2 ms. E. of Cashiers,  
Jackson Co., N.C. Elev. (am) 3150 ft. VII.16.1952.  
(R.)

Roadside weedy growth & oak scrub along  
pruned mixed deciduous woods. No *C.*  
except *Tetrigids* (✓) and  
juv. *Chortophaga*.

$$\text{Orth. } 2 + 125 = 127.$$

$$\text{Other ins. } 14 + 137 = 151.$$

1952.11 3 ms. E. of Cashiers, Jackson Co.,  
N.C. Elev (am) 3200 ft. VIII.16.1952.  
(R.)

Pockets of low corn along border of heavy  
woodland (mixed decid. - pine), with  
hick, wild strawberry, blackberry & var.  
other low plants and shrubs.

*Uroph. pelidna* a few adults (♂ & ♀) scattered.

*Uroph.* 1 juv.

*Mel. lucida* a few adults & juvs.

*Trichodes* 1 ad. ♂ & num. juvs. local,  
partic. near wild Strawberry.

*Atlantrius* about 1 ♂. kept from ground -  
no more seen.

Conocoryph. hesiperum 1 ad. ♀.

Neurob. juss. - a few.

Orth. 25 + 127 = 152.

Other ins. 7 + 151 = 158.

1952.12 Betw. Ashers and Cowee Gap,  
1 m. N. of former, Jackson Co., N.C. Elev.  
(am.) 3025 feet. VIII.16. 1952. (R.)

Perchets along roadside, some out of phagnum  
area with Habenaria.

Homotettix no. juss. rupt. 1 ad. ♂. Arphia xanth.  
Tettigidea 1 ♂ 1 ♀. rupt. 1 juv. ♂.

Cephusella prid. 1 ad. ♀. near phagnum.

Melanoplus tender 1 ♀. on dry roadside.

" tribulus 2 juv. ♂♂.

Sudderia 1 ♂. in tall weeds.

Oreanthus latip. 3 ♀♀ rupt.

Orth. 14 + 152 = 166.

Other ins. 9 + 151 = 160.

1952.13 E. side of Cowee Gap,  
Jackson Co., N.C. Elev. 4150 ft. (ch.)  
VIII.16. 1952. (R.)

Roadside of mixed decid. & pine  
woodland. little O.



1952.13 (cont.)

Tettigidea nv. juv. / rupt.

Anelapha ret. 1 ad. ♂. rupt

Orth. 3 + 166 = 169.

Other was 0 + 160 = 165.

1952.14 Slopes along Cullasaja River, about  
1.5 miles below Cullasaja Falls, Macon Co.,  
N. C. Elev. (app.) 2100 feet. VIII.16.1952. (R.).

Road margin in gorge on one side, steep  
slope on other. Moist edge (hardwoods).

Tettigidea nv. juv. rupt.

Mel. luridus 1 ♀.

" celatus 2 ♂, 1 juv. ♀. - very local, all seen  
Chortoph. juv.

Conoccephalus juv. in mud.

Neconoccephalus 1 juv. rupt in mud

Oreanthus lat. 1 ♀ 2 juv. in mud.

Phylleris 1 ♀ rupt.

Orth. 15 + 169 = 184.

Other was 0 + 165 = 165.

1952.15 Short Creek, Cullasaja River,  
ab. 8 miles NW. of Highlands, Macon Co.,  
N. C. Elev. 2500 ft. (ch.) VIII.16.1952. (R.).

Cut on roadside - very little.

Desmottella ✓ 1 ad.

Tettigidea 3 juvs.

Menidia 1 juv.

Orth.  $5 + 184 = 189$ .

Other ins.  $3 + 165 = 168$ .

---

1952. 16 1/4 m. N. of Sealy, Macon Co.,  
N. C. Elev. (ch.) 3550 feet. Aug. 17, 1952.  
(R.).

Roadside scrub, partly cut out, along  
edge of hardwood forest. Much tulip,  
rhododendron, sassafras, etc.

Md. lucidus 1 ♀ juv.

Erithia 1 juv.

Turdus 1 ♀.

Sept. C. n. n. 1 ♂ 1 juv.

Orth.  $6 + 189 = 195$ .

Other ins.  $5 + 168 = 173$ .

---

1952.17 Salt Rock Gap, 1.5 m. W.E. of Seely,  
Macon Co., N. C. Elev. 3850 feet. (an.).

VIII. 17, 1952. (R.)

Border of cut-out hardwood forest, with  
tangles of briars, blackberries, wild straw-  
berry, etc. My little O.

*Chortophaga* 1 juv.

*Mel. tritubus* 1 ad. + 2 juv. males. all seen

*Eudorrina* 1 ♀. in full growth.

Utth. 5 + 195 = 200.

Utth. ins. 1 + 173 = 174.

1952.18 "The Catfairs", 1.5 m. E. of Salt Rock  
Gap (N. C. 106), Macon Co., N. C. Elev. 3750 feet  
(chart). VIII. 17, 1952. (R.)

Pocket of roadside blackberry, briar,  
low hairy cornet, etc., at outlook over low  
country to S.E. Slopes very precipitous.

*Nomotettix* 1 ad. swept from ground.

*Mel. luridus* 1 ad. ♀ + sev. juv.

*Cnecops*. *trivip*. 1 ad. ♂ 1 juv.

Utth. 6 + 200 = 206.

Utth. ins. 11 + 174 = 185.

1952.19 Whiteside Cove, at S. base of  
Whiteside Mtn., Jackson Co., North  
Carolina. Elev. (ch.) 2775 feet. VIII. 17. 1952.  
(R.).

Same openings in hemlock, pine & mixed  
deciduous woodland along head of  
Worton Creek. Very little O.

*Nonotettix* } largely juv.  
*Tettigidea* }  
*Aeghina* 1 very imm. juv.  
*Mel. trilineatus* 2 ad. ♂.

All O. seen.

With. 11 + 206 = 217.

Other ins. 17 + 185 = 202.

1952.20 Same Station as 1952.9 but  
VIII. 18. 1952 Same location. (R.)

Work done entirely in old fields.

*Nonotettix*, a few, chiefly juv. except  
*Aeghina* sp. sev. juv.

*Amphispiza* juv. only in nr. section

*Chondestes* 1 ad. in meadowy pasture

*Psaltriparus* 1 ad. in ground cover

<sup>Hippine</sup>  
*Mel. arvensis* sev. juv.

*Junco ruber* 1 ad. taken, numerous  
juv. seen



1952.20 (cont)

Melan. tribulus rather common in field  
but mostly immature, not common.  
3 ad. ♂, 2 ad ♀ + 8 juvs. Taken  
around some preference for wild  
strawberry areas.

Sundelina 3 ♂♂ & 2 spp. Mostly swept  
from tall weeds.

Ustul. 2 juvs. (app. rustica)

Acanthus 1 ♂, 3 ♀ swept

Thomomys a few juvs. - no adults seen

Tryp. 1 ad. ♂ + 1 id.

Uth. 37 + 217 = 254.

Uth. ins 13 + 202 = 215.

---

1952.21 Along Big Creek, 1.5 m. S. of state  
line, (Chattooga drainage), Rabun Co., Ga.  
Elev. (av.) 2100 feet. VIII. 18, 1952. (R.)  
from up old fields and wood edge (mixed  
decid. + pine), with briars, blackberry,  
wild strawberry, golden rod, etc.

Tettigidea 1 juv. swept.

Ellichromorpha 1 ad. + 1 juv. all seen - in  
grassy spot.

Arphia xanthoptera a number seen - 2 taken

Chistocerca ann. two juvs. 2 taken

Mel. lurida 1 ♀, all seen.

Cnecoph. luv. 14 taken, all noticed.

Arth. 9 + 254 = 263.

Uther in 4 + 215 = 219.

---

1952. 21 Sassafras Gap, 4.5 miles S. of  
Highlands, Macon Co., N. Car.

Elev. (ch.) 2820 feet. VIII. 18, 1952. (R.)

Roadside woods & prairies - no level areas  
to mch. No O. seen except those taken

Aupha xanthoptera. 18.

Leccanthus sp. 14 mpt.

Arth. 2 + 263 = 265.

Uther ins 0 + 219 = 219.

---

1952. 22 South Slope of Satulah Mtn.,  
2 ms. S. of Highlands, Macon Co., N. C.

Elev. (ch. an.) 3250 feet. VIII. 18, 1952. (R.)

Roadside patches on very steep timbered  
slopes. Almost no O.

Neotettix femoratus 1 adult.

Chortophaga luv. juv.

Arth. 3 + 265 = 268.

Uther ins. 5 + 219 = 224.

---

1952.23 Wolf Ridge, N. E. of Satulah Mtn.,  
1 mi. SE. of Highlands, Mason Co., N. Car.  
Elev. 3950 - 4120 feet (ch.) VIII. 19. 1952.  
(R.)

Weather became dull and finally a thunder-  
storm. Almost nothing stirring. At Summit  
Rock (upper elev.) <sup>considerable</sup> exposures of weather  
granitic rock, deeply cut and channelled  
and pitted by weather erosion. Remains  
of work along the sides of a woodland  
road on a rocky bed.

*Chlorostoma* on small sandy area in  
front road. Two seen - 1 taken.

*Trimerotropis saxatilis* - only on Summit  
Rock on bare granitic surface, with patches  
of a sphagnum type of <sup>low</sup> vegetation in the  
depressions. 1 taken, another seen but  
lost - all noticed. (4120 ft.)

*Amblycorypha* rot. 1 swept along  
sides of woodland road.

Orth. 3 + 268 = 271

Orth. no. 3 + 224 = 227

1952.24 W. side of Chattooga Ridge, E. of  
N. Fork of Chattooga River (S.C. 28), Oconee  
Co., So. Carolina. Elev. (am.) 1350 feet.

VIII.20, 1952. (R.).

Borders of heavy mixed deciduous and  
pine woodland. Quite int. Heavy rain  
yesterday P.M.

Arphia juvs. numerous.

Melanoplus walshii 1 ♂ in heavy tangle.

" similis 1 ♂ (rel. femoral)

except from low tangle.

Sudderin 2 ♂ species - in under-  
growth.

Pterophylla 1 ♀ swept from under-  
growth.

Conocephalus brev. a few in ground  
cover.

Orth. 12 + 271 = 283.

Other ins. 17 + 227 = 244.

1952.25 SW. base of Stamp House Mtn.,  
4 ms. NW. of Walhalla, Oconee Co.,  
So. Carolina. Elev. (am.) 1050 feet.

VIII.20, 1952. (R.).

In open pine woods with vegetation  
of ~~the~~ huckleberries, etc., and along edges



1952. 25 (cont.)

of mixed hardwood and pine forest  
Anthtropidia a few juvs. in ground  
also in open pine woods.

Pardaphora phoenic. 1 ♀ in same.

Sphragnum bolli 1 ♀

Mel. curidus 1 ♂ wood edge in <sup>wood</sup> Tangle

" viridis 1 juv. ♂ + sev. juvs. ditto.

Syrphula 1 juv. in open pine woods.

Chis. Truena juv. sev. " " " "

Anthropomyza ulteri 1 ♂ 1 ♀ ditto.

Hecanoph. 2 juvs. ditto

Adontophidion 1 ♂ 1 ♀ ditto. all seen.

Phyllocnistis 1 ♀ apt.

Oecanthus latip. 1 ♂ apt.

Orth. 23 + 283 = 306.

Other ins. 6 + 144 = 150.

1952. 26 Mountain Rest, Chattooga Ridge  
near Taylor's Creek, Oconee Co., So. Carolina.

Elev. (am.) 1400 feet. VIII-20, 1952. (R.)

Edge + interior of pine, oak - hickory  
woods. Much cut over. Total 6. 1 ~~to~~

Microcentrum minus caudal  
limb.

Orth. 1 + 306 = 307

Other ins. 5 + 200 = 205

1952.27 South Slope of Satulah Mtn, along  
H.C. highway 28, 2 ms. S. of Highlands,  
Macon Co., N. C. Elev. (am.) 3300 feet.  
Aug. 20, 1952. (R.)

Very small ravines crossing road, and  
along road edge. Borders slopes up and  
down, very steep, rocky & unworkable.  
found corn blackberry, etc.

Nomotettix 1 ad. <sup>+ 1 juv.</sup> & 1 impt.

Neotettix " " "

Chortophaga a few very small juvs.

Hippisus 1 ad. ♀ in low fr. cover.

Mel. luridus 1 ad. ♀. ditto.

Orth. 7 + 307 = 314.

Orthids 6 + 255 = ~~255~~ 261.

1952.28 One mile W. of Cashiers  
(along U.S. 64), Jackson Co., N. Car.  
Elev. (am.) 3450 feet. VIII. 21, 1952. (R.)

Wood edge of mixed deciduous  
forest and also old field overgrown  
with sumac and briars.

Nomotettix 1 ad. ♀ + 1 juv. impt from  
ground cover.

Spharagnum lilli 2 ♂♂ all seen,  
in tangle low growth.

1952. 28 (cont.)

Mel. trilobus 2 ♂ 1 ♀ in wood edge  
corn.

Mel. leucurus 1 juv. ♀.

Ampelis sp. 1 juv.

Scolecophagus 1 ♂, 1 ♀ flying into taller  
weedy corn.

Merula carolinensis 2 ♂ most

Orth. 13 + 314 = 327.

Uther in. 10 + 261 = 271.

1952. 29 1 m. N. of Corvie Gap, E. side  
of Corvie Mts., Jackson Co., N. Carolina.

Elev. (ch.) 3860 feet. VIII. 21. 1952. (R.)

Edge of and beneath mixed deciduous  
woods, chiefly tall oaks. Road edge  
largely overgrown with briars, blackberries  
and sumacs.

Myi. v. oedip. 1 Taken

Spharagemon belli 1 ♀, all seen.

Mel. leucurus 1 ♀.

Orth. 3 + 327 = 330

Uther in. 11 + 271 = 282.

1952.30 Cowee Gap, Cowee Mts.,  
Jackson Co. side, North Carolina.

Elev. (ch.) 4210 feet. Aug. 21, 1952. (R.)

Very steep and narrow strip of low  
roadside corn, in part with huckle-  
berries, slopes above and below with  
white pine and mixed deciduous.

Below slopes precipitous.

Spharagnum illi 12.

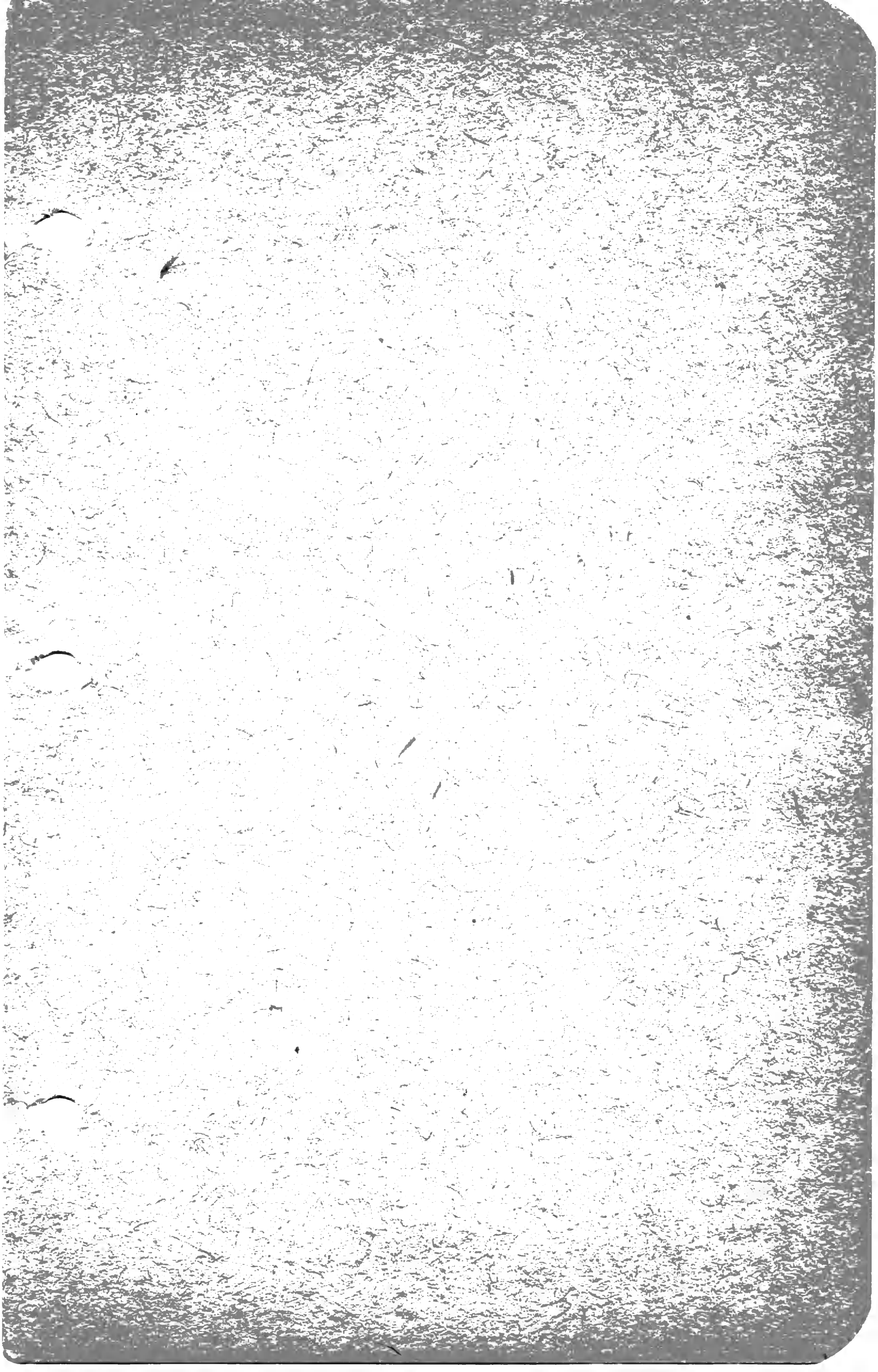
Mel. Trichurus 1 juv. ♀.

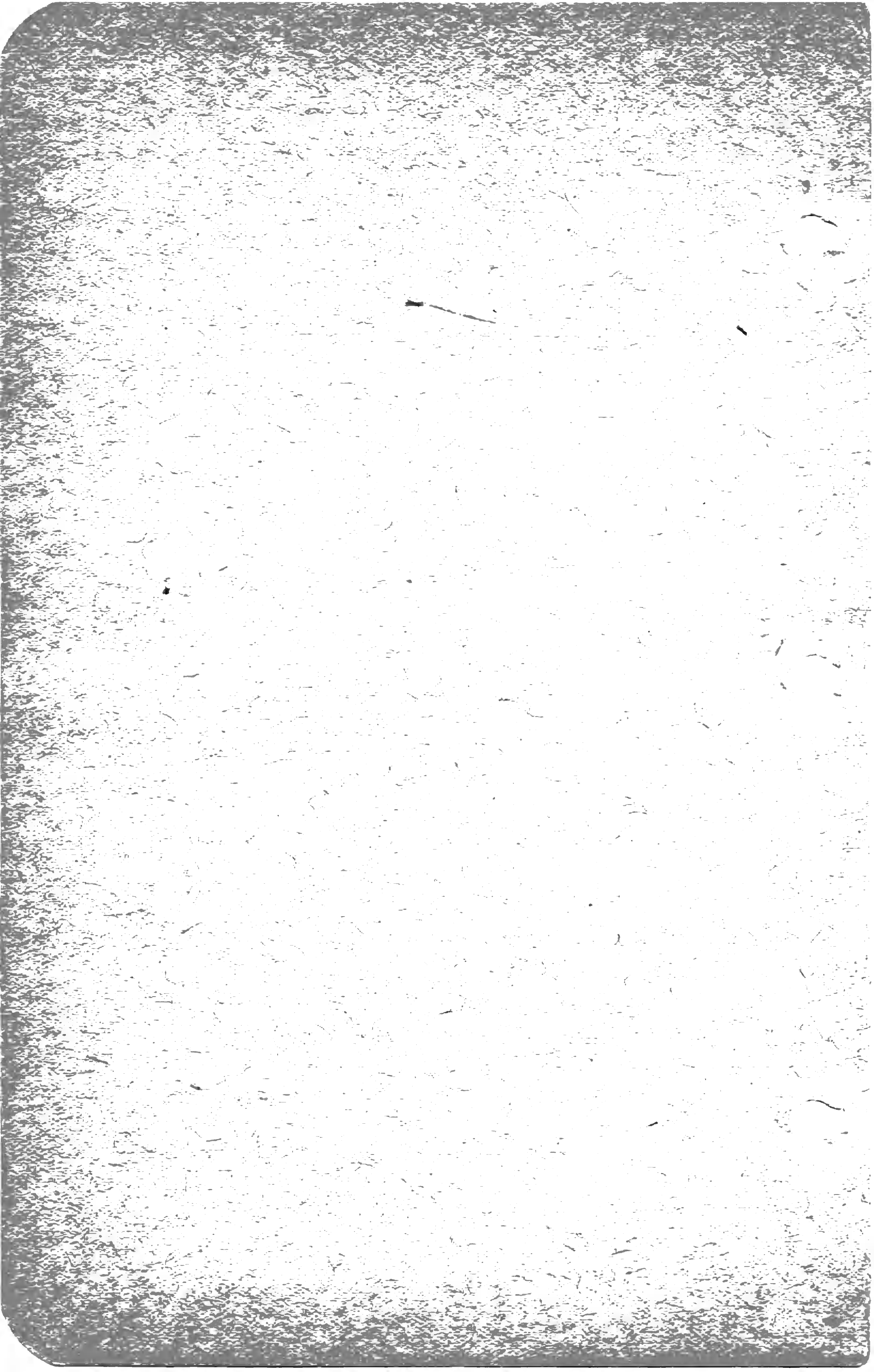
Orth.  $2 + 330 = 332.$

Others.  $9 + 282 = 291.$

---







1953

1953. 1 W. side of Timber Ridge, 1.5 miles  
E. of Capon Bridge, Hampshire  
Co., W. Va. Elev. (am. chart) 1000 feet. Aug.  
6, 1953. (R.).

Thickly and unevenly, everything out. Road-  
side crowding. Only adults 1 ♂ Mel. fuscus-rufus  
+ 1 Tetrix. Immat. Chortophaga, hichromorpha  
+ Melanophus. 1 adult hiscrocinia seen.

Both. 9

Other in 5

1953. 2 Along N. Fork of South Branch of Potomac  
<sup>6.5 mi. N. of Capon Bridge</sup>  
River, <sup>of Pendleton Co.</sup> Hampshire Co., W. Va. Elev. (am. chart) 1500  
feet. Aug. 6, 1953. (R.).

Lowest + very wet. Much done in patches of short  
grass and weeds, with scattered stony spots,  
along edge of mixed hardwood stands.

Syrphula admiranda juv. of both sexes, no adults seen.

Chortophaga viridis. Sev. adults (♀♀) all seen.

Hippisus negro Numerous, mostly adults,  
as usual quite sluggish + easily captured.  
A very few juvs seen. Rather few on the  
patches examined.

hiscrocinia carolina. A few, 2 taken, in  
drain as well as on road.

Melanophus differentialis 2 ♂ seen + taken -  
all retained.

Melanophus fuscus-rufus Several adults (taken)  
" mexicanus " " "



Melanophus juv. sp. ? Numerous.

Coronophalus stritum A few females, not quite adult.

Orth. 40 + 9 = 49.

Other ins 0 + 5 = 5.

---

1953.3 Along Sassa Creek about 4 miles  
E. of Chicago, Pendleton Co., W. Va. Elev. ab.  
2750 feet. VIII. 6. 1953. (R.).

Overcast with light fog.

Roadside in steep gorge - few spots level enough  
to work and there almost entirely wooded  
country.

Monotellus - 1 juv. swept from ground.

Amydus Titix - 1 ad. swept from ground.

Melanophus sp. 1 juv.

Amblycorypha rotundifolia 1 ♀ swept  
from fallen woods.

Coronophalus sp. 1 ♂.

Oecanthus 1 juv. swept.

Orth. 6 + 49 = 55.

Other ins. 5 + 5 = 10.

---



1953.4 Slopes along road above crossing of  
Key Fork River, S.W. of <sup>an</sup> Harman, Randolph Co.,  
W. Va. Elev. (ann.) 3000 feet. Aug. 6, 1953. (R.)  
Roadside weeds and grass. <sup>much cut grass,</sup> ~~much cut grass,~~ <sup>hull,</sup> trying to  
clean.

Tettigidea sp. juv. - Heteris??

Chloromorpha viridis 1 ad. ♀.

Conophorus levis. A number.

Neurobis fasc. numerous adults - many juv.

Urch. 17 + 55 = 72.

Urch. ins. 11 + 10 = 21.

---

1953.5 5 ms. E. of Elkins, Randolph Co., W.  
Va. Elev. (ann.) 2600 feet. Aug. 6, 1953. (R.)

Roadside.

Tettigidea sp.

Chloromorpha can. A number, three taken.

Melanoplus curvus 1 ad. ♂

" walshi? 1 juv.

" sp. juv.

Urch. 8 + 72 = 80.

Urch. ins. 0 + 21 = 21

---

1953.6 4 ms. due S. of Elkins, Randolph Co.,  
W. Va. Elev. (check on topographic charts) Bandy?  
Aug. 7, 1953. (R.)

Wetland (roadside) with heavy weeds, matted,  
wild carrot, tall grass, etc.

Melanoplus viridatus. Two adults, some juv.

" fun. - rubens Two adults.

Conophorus juv. only.

Urch. 4 + 80 = 84.

Urch. ins. 12 + 21 = 33.

1953.7 2.5 ms. S.E. of Huttonsville,  
Randolph Co., W. Va. Elev. 2250 feet (ch.)  
~~but check on chart.~~ VIII. 7. 1953. (R.)

Roadside, Fall woods, milkweed, sumac,  
wild carrot, wood edge of mixed decid. forest.  
A few rather bare spots of thaly silt. Almost  
nothing else.

Arphia xanth. 1 ad. - 1 juv. Taken - others given -  
seen.

Emmettlophus sordidus 1 juv. Taken - all seen.

? Hippicus sp. Very small juvs - two seen, one taken.

Melanoplus fuscus-rubrum Few adults, many  
juvs.

Melanoplus luidens 1 ♂ Taken.

Dendroica 2 females taken - several others  
flushed.

Coronophorus - abundant juvs (1 taken), no  
adults.

Uranthus 1 ad. Taken.

Neurobis fusc. Many juvs, few adults  
(no taken).

Orth. 18 + 84 = 102.

Other ins. 5 + 33 = 38

Corner Top of Cheat Mtn.

1953.8 W.S. 250, 9 ms. S.E. of Huttonsville,

Randolph Co., W. Va. Elev. 3798 feet (ch.)

~~Aug. 7. 1953. (R.)~~

Roadside in heavy forest, chiefly mixed  
deciduous but with some remnants of oaks.

1953.8 (cont.)

hemlock. Tall grass, drain with sphagnum & brake, ~~black~~ huckleberries, some wild carrot, etc.

Clypeodella spinosa 1 ad. (all sun) & numerous juvs. in drier areas.

Hesperieta - a few, 1 taken.

Tuloclypea 1 in instar preceding maturity; all sun after long search, in tall growth but no hazel evident.

Melanophus ~~bicolor~~ bivittatus. ~~Two~~ few adults seen & taken, numerous juvs.

Melanophus lucidus very few adults, numerous juvs.

Amblycorypha retundifolia. 1 ad. ♂ swept.

Arith.  $24 + 102 = 126$

Uthmanis.  $5 + 38 = 43$ .

near Top of Allegheny,

1953.9 ~~at 2000~~ 6 miles E. of Bartow,

Pocahontas Co., W. Va. Elev 39500 feet - (OK)

check on topog. maps. Aug. 7, 1953. (R.)

[In valley of Tributary of Greenbrier River]

Heavy forest largely mixed hardwoods with a few ~~black~~ hemlocks left. Much dense

roadside in heavy cone consist to shoulder high, various shrubs, with wild carrot, etc. very little sun. Unmist with occ. drizzle.

Hesperomys indis. 1 ad. ♀.

Melanophus f. r. 1 ad. ♂.

Sunderia sp.? 1 ♀ swept.

Nematus fasc. adults fairly numerous.

Orth.

$$7 + 126 = 133.$$

Orth. vis

$$4 + 43 = 47.$$

---

1953. 10 Shenandoah Mtn. road crossing  
of U.S. 250, Highlands - Augusta Cos., Va.  
Elev. (l. m.) 2950 feet. VIII. 7. 1953. (R.).

Drizzle + fog. Work limited by terrain to a few  
small patches! Almost nothing seen on water.  
Nothing seen in undergrowth of mixed hardwood  
forest where reachable!

Blennius can. 1 taken.

Nematus fasc. 1 swept.

$$\text{Orth. } 2 + 133 = 135.$$

$$\text{Orth. vis. } 3 + 47 = 50$$

---

1953. 11 1 m. E of Keswino, Nelson Co., Va.  
Elev. (aner.) 1450 feet. Aug. 8. 1953 (R.)

Roadside vegetation in forest of mixed deciduous  
and evergreen & character. Above largely cactifera,  
Smilax, wild grape, etc.

Diapheromera, a number of juvs - green - brown  
phases.

Blennius can. seen on roadside.

Chironomus - a few, all seen (1 ♂ 1 ♀) Taken.

Amphipoda whitii 1 ♂ swept.

Phyllonurus pulchellus A few, 1 ad. taken.

Anax ipha Much more numerous in small colonies.  
In some (shoulder back) com.



1953. 71 (cont.)  
Cuck 18 + 135 = 153.  
Uther ins. 12 + 50 = 62.

---

1953. 12 1/2 m. SW. of Tye River Gap,  
Blue Ridge Parkway, Nelson Co., Va.

Elev. (an) 3200 feet - checked. VIII, 8, 1953. (R.)

In grassy open patch in deciduous forest, largely  
oak. Low marginal growth largely oak scrub.

Chrysomitris 1 juv. swept.

Syrphula adm. A few juvs.

Ophodonta speciosa 1 ♂ - all seen.

Chlorophanes 1 ♂ - all seen.

Amphispiza xanthoptera 1 ♀. - no. others seen.

Myiarchus cinereus Numerous. 1 juv. taken  
also.

Sporophila holli Two taken in diff.

<sup>sp.</sup>  
Melanerpes formicivorus 1 ♂.

" formicivorus A few adults. } seen.

Titix 1 swept.

Amphispiza uhleri 1 ♂ swept.

Corvus stricklandi 1 ad. ♀.

Merula americana.

Uther. + 153 = 31. 184

Uther ins. 4 + 62 = 66.

---

1953.13 14 ms. S.E. of Tyne River Gap,  
Blue Mtn. Parkway, Amherst Co., Va.

Elev. (an.) 2200 feet. VIII.8. 1953. (R.)

Cut on slope ~~original~~ overgrown with  
wide broad mixed deciduous forest.

Spharagnum belli 1 ♂ - all seen.

Melanophus diff. 1 ♀ - one other seen lost.

" pub. lunatus juv. only.

Orth. 7 + 184 = 191.

Other in. 1 + 66 = 67.

---

1953.14 Blue Ridge Parkway,

14 ms. S.E. of Snowden, Bedford Co., Va.

Elev. (an.) 1875 feet. VIII.8. 1953. (R.)

grassy - bushy roadside in mixed  
hardwood forest. All seen taken - none  
stopped by storm.

Chamaea 1 juv.

Spharagnum belli 1 ♀.

Hippiscus negrus 1 juv.

Eurostaphus lv. juv.

Chamaea Chamaea 1 very small juv.

Tettigidea lat. 1 ♂.

Mel. lunatus juv. adult - 1 juv.

" ferus - sub. 1 ad.

1953.14 (cont.)

Anthracomyia whitii 1♂, 1♀.

Neuroscia 1.

Cecanotus 1 juv.

Urch. 18 + 191 = 209.

Other ins. 0 + 67 = 67.

---

1953.15 1.5 ms. S. of Abbott, Craig Co., Va Elev.  
(an.) 1500 feet. VIII. 9. 1953. (R).

In cut-over low pine and oak, with much  
oak scrub.

Syrphula admir. 1 juv. - all seen.

Spharagnum belli A number seen, 3 taken.

Largely in oak scrub, a few roadside (admir.).

Melanophus f. 1 roadside.

" lucida very few, chiefly immat.

Sordaria sp. 1♀ taken from oak scrub.

Cnecophanes strictus 1♀ + 1 juv.

Amatophia 1 swept

Urch. 11 + 209 = 220.

Other ins. 0 + 67 = 67.

---

1953.16 2.5 ms. W. of Newcastle, Craig Co.,  
Va Elev. (an.) 1960 feet. VIII. 9. 1953. (R.)

Roadside + edge of low oak woodland.

the Saw Sph. belli - Whistleria can.

Melanophus lucida few adults - num. juv.

" sp. Many juv.

Syrphula admir. 1 juv. - all seen

Conocphalus sp. 1 ad. ♂ only adult seen.

Nematus sp. 1 taken.

Anaxipha. 1 kept.

Orth. ♂ + 220 = 228.

Other ins. 3 + 67 = 70.

---

1953. 17 S. side of Potts Mountain, 6.5 miles W.  
of Newcastle, Craig Co., Va. Elev. (approx.) 2400 ft.  
VIII. 9. 1953. (R.).

Roadside and in ground cover of very low decid.  
forest, largely oak. Undergrowth chiefly oak scrub,  
sassafras, buckthorn, etc.

Blisasteria commun. 1 taken.

Spharganium belli A few. 1 taken.

Microgaster <sup>l.</sup> thomasi 2 pairs on broken  
sticks of road turn-out - not together -  
no others seen.

Melanophila f. m. a very few.

" curvatus. local, in scrub.

" diff. A few, 1 taken.

Orth. 11 + 228 = 239.

Other ins. 0 + 70 = 70

---

1953. 18 Road crossing (Va 311) of Potts  
Mountain, Craig Co., Va. Elev (approx.) 3450 ft.  
VIII. 9. 1953. (R.).

Open spots and roadside in heavy deciduous  
forest. Nothing in forest undergrowth.



1953.18 (cont.) Walk cut short by heavy rain. <sup>going into woods.</sup>

Missotera carolina Abundant, 3 Taken.

Sphragnum bolli. Locally numerous. 3 Taken.

Melanophus lucidus. A few juvs. - no adults seen.

Ueth. 8 + 239 = 247.

Ueth. vis. 7 + 70 = 77.

---

1953.19 4 ms. S. of Salt Sulphur Springs,  
Monroe Co., W. Va. Elev. (an.) 1950 feet.

VIII. 9, 1953 (R.)

Roadside and drain - nothing seen except what was taken - rain again interrupted.

Sphragnum bolli - 1.

Melanophus lucidus 1 juv.

Neurobis - 1.

Ueth 4 + 247 = 251

Ueth. vis. 0 + 77 = 77.

---

1953.20 5 ms. NW. of Floyd, Floyd Co.,  
Va. Elev. (an.) 2300 feet. VIII. 10, 1953. (R.)

Roadside and edge of wood screen, very wet from rain and dew! Almost nothing.

Mel. f. z. few.

Triton 1 juv.

S. adducta 1 ♀ swept from wood edge.

Conocophanes strictus 1 ad. ♀.

Ureanthus latip. swept juv.

Ueth. 9 + 251 = 260.

Ueth. vis. 4 + 77 = 81.

1953. 21 3 ms. E. of Willis, Floyd Co., Va.  
Elev. (an.) 2700 ft. VIII. 10, 1953. (R.)

Old field (abandoned cemetery), road  
turn-out and drain. Most all surface  
elsewhere cultivated.

Tettigidea a number of juvs. except.

Cyphobella spec. 1 ♂ old field.

Spharagemon belli a few seen, 1 taken,  
old field.

Mictobryna le. Thomasi. 1 very small colony  
in broken stone of turn-out - 2 taken.

Melanoplus lucidus Des. 1 ♀ taken. Mostly  
grass. <sup>mostly grass.</sup>

" <sup>mostly grass.</sup> 1 ♂ taken

Nemobius a few, 2 taken.

Orth.  $14 + 260 = 274$

Other ins.  $0 + 81 = 81$

---

1953. 22 Near Canon, 6.5 ms. W. of Willis,  
Carroll Co., Va. Elev. (an.) 2750 ft. VIII. 10, 1953.  
(R.)

Old field & roadside. Country almost  
entirely cultivated. Old field heavily  
grown up with briars, blackberries, etc.

Tettigidea 1 ♂ & 1 ♀.

~~Orth~~ Cyphobella speciosa. Local, in  
barren and drain areas.

Cyphobella xanth. a few - 1 taken

1953. 22 (cont.)

Carriopteryx trid. 1 ad. seen - Taken, also  
a few juvs.

Spharagemon loli. A number seen - 1 Taken.

Melan. f. r. abundant, largely juvs.

Scudderia 1 ♂ Taken from Fall meadow.

Conosyphus strictus 1 ♂ a juv. ♀.

• ? Salix ign. Taken.

Arth. 20 + 274 = 294.

Arth. in. 0 + 81 = 81.

---

1953. 23 Along New River 5 ms. SW. of  
Galax, Grayson Co., Va. Elev. (an.) 2300 ft.  
VIII. 10, 1953. (R.)

Hillside old field growing up in pine and oak,  
chiefly former.

Manomera Blatchleyi 1 ♀ Impt.

Tetrix 1 Impt.

Neotetrix 1 Impt.

Syrphula 1 juv. on ground.

Cephus opac. 1 ad. Taken.

Arphia xanth. A number - 1 Taken.

Microsternus car. the larger spots - seen Taken.

Melanophus luridus juvs. only.

Scudderia 1 ♂ Taken - a number of  
others seen.

Conocoryphus strictus, 1 ♀ taken.

" altatus? 1 juv. taken.

Oecanthus sp. 1 ♂ impt., a juv. also taken.

Orth.  $14 + 294 = 308$ .

Orth. ins.  $0 + 81 = 81$ .

---

1953. 24 5 mi. N of Independence,  
Grayson Co., Va. Elev. (an.) 2800 feet. VIII.  
10, 1953. (R.)

Roadside edge of woods - old field conditions  
Chrysomitris car. a few, 1 taken.

Melanophyes f. r. Abundant, almost all juv.

" lucida 1 juv. taken

" sp. ?? A number of juvs. taken  
wood edge.

Amphispiza nelsoni 1 ♀. impt.

Conocoryph. strictus juvs. only seen & taken.

Parus fasc. A number.

Oecanthus juvs. only.

Orth.  $19 + 308 = 327$ .

Orth. ins.  $2 + 81 = 83$ .

---

1953. 25 West side of road crossing  
(Va. 16) of Iron Mtn., N. of Troutdale,  
Smyth Co., Va. Elev. (chart) 3300 feet.  
VIII. 10, 1953. (R.)



1953.25 (cont.)

Open area at road intersection in  
deciduous forest, a herb area with an old  
field adjoining, also a broken road  
stone. Many species restricted taken.

Tettigidea. 1 juv. Taken of old field.

Syrphula adm. Numerous in grass - wood.  
but all immat. except a single ♂ taken.

Aphidella spec. Locally numerous, in the  
grass & on bare spots.

Eurypteryx ord. Two juvs. taken.

Hippisus rugosus taken & taken.

Spharagmus elli Local in all situations

Microstigma abund. 1 taken.

Metathysanus k. thomasi. Several small  
colonies on & near the broken road stone.  
5 taken.

Melanoplus f. r. Numerous, many adults  
" lucida Few adults.

" diff. 1 ♂ taken - all seen. Old field.

Amblyop. uhleri 1 ♂ reapt.

Scudderia 1 ♀ reapt.

Cneph. 1 ♂ 1 ♀ taken.

Membr. fasc. Numerous.

" brunnei? 1 ♀ taken on wood edge.

Urch 49 + 327 = 376

Urch in. 8 + 83 = 83

1953.26 South slope of Pine Mtn., above  
West Fork of Wolf Creek, Washington Co., Va.  
Elev. (an.) 2350 feet. VIII. 10, 1953. (R.)

Old field in deciduous - pine forest  
heavily grown up in blackberries, trailers,  
and wild strawberry. Also in woodland.  
Nothing seen in latter. All seen taken except  
Blissasteria carolina.

Syrphula adum. 1 juv.

Melanoplus pub. lucidus. juvs. only.

Scudderis sp. 2 ♀♀ lighting in tall weeds.

Cnephodolus altus? juvs. only.

Alucanthes 1 juv. swept.

Alt. 10 + 376 = 386

Other no. 5 + 83 = 88

---

1953.27 Road crossing (Va. 80) of Rich Mtn.,  
Clinch Mtn. Ridge, Russell-Washington Co.,  
Va. Elev (an.) 3100 feet. VIII. 11, 1953 (R.)

Road edge of deciduous forest, chiefly oak  
and locust. Nothing in woods. Everything  
seen taken.

Blissasteria very common - 1 taken.

Melanoplus lucidus Few adults (1 taken),  
numerous juvs.

1953. 27 (cont.)

Camptonotus - One swept from vegetation  
on bank overlooking road.

Uth. 5 + 386 = 391.

Uth. ins. 3 + 88 = 91.

1953. 28 2 ms. N. of Hickersonville, Washington  
Co., Va Elev. (an.) 2100 ft VIII. 11. 1953. (R.)

Roadside weeds - clover - drain. Everything  
recognized taken except 1 Melanoplus  
differentialis - num. Hissasteria.

Chortophaga viridifasciata 1 ad. ♀ + 1 juv.  
All seen, in <sup>dry</sup> drain.

Melanoplus f. = several but mostly juv.  
Adults taken.

Melanoplus mex. 1 ♂ 1 ♀ taken, in <sup>dry</sup> drain.  
Tendonia 1 ♀ in weeds.

Conorhopalus 2 species. In both situations  
Uth. 16 + 391 = 407  
Uth. ins. 0 + 91 = 91.

1953. 29 About 4 ms. E. of Rose Hill,  
Lee Co., Va Elev. (an.) 1350 ft. VIII. 11. 1953.  
(R.)

Roadside and edge of old field. Nothing  
seen but what was taken.

Syrbula abund. 1 ♂ in old field area.

Hippiscus negrosus 1 taken roadside, then  
seen.

~~the~~ Emmoptophus undatus, two juvs.  
no adults noticed.

Melanerpes bittatus, 1 ♀ in old field.

" sp. 1 juv. blitto.

" lunatus 1 ♀ blitto.

Fundulus sp. 1 ♀ Edge of wood across  
of old field. <sup>border</sup>

Conocephalus strictus a few.

Arremonops sp. ♂ + ♀ impst.

Arth 13 + 407 = 420.

Arth ins. 0 + 91 = 91.

---

1953. 30 Along Greasy Creek, 4 ms S.E. of  
Four-mile, Bell Co., Kentucky. Elev. (approx.) 1075 feet.  
VIII. 12. 1953. (R.).

In old fields and roadside. All species seen  
taken.

Syrbula 1 ad. + 1 juv all seen - old field.

Amphispiza 1 juv. all seen - same loc.

Hippiscus negrosus 1 ♂, two. Other seen - old field.

Melan. sp. juv.

" diff. 1 ♂ 1 ♀ 1 juv. all seen - both environments.

Conocephalus 2 sp. Mostly juvs. with adults.

Arth. 13 + 420 = 433.

Arth ins. 0 + 91 = 91.



1953.31. 5 mi. E of Siler, Whitley Co., Kentucky.  
Elev. (an) 1175 feet. VIII. 12. 1953. (R.)

In road from narrow side valley and forest edge. Everything recognized taken. except  
Wisconsinia car. 1 taken - a number seen.

Hippiscus myosus. 1 taken, others seen.

Melanophus diff. 1 taken in fall under. Others seen.

Melanophus littatus no. in side valley, one badly battered - clearly old.

Conoscephalus sp. A number.

~~With~~ With 8 + 433 = 441

With ins. 0 + 91 = 91.

---

1953.32 1 mi. E. of Siler, Whitley Co., Kentucky  
Elev. ~~1175~~ <sup>c. 1100</sup> feet. VIII. 12. 1953. (R.)

Old field and road. Most things given  
Nothing recognized not taken.

Melanophus <sup>Chortophila</sup> sp. 1 juv. 1 taken.

Amblyscapha rotund. 1 ♀ kept from road undergr.

Archelidum sp. 1 juv. ♀ kept in the field.

Conoscephalus juv. only.

Acanthina lutea. 1 ♀ kept

Phyllorhynchus 1 ad. ♀. " from road  
road bordering undergr.

With. 7 + 441 = 448.

With ins. 0 + 91 = 91

---

1953. 33 4.5 ms. SW. of Williamsburg,  
Whitley Co., Kentucky. Elev. (an.) 1450 feet.  
VIII. 12, 1953. (R.)

Along front edge and roadside.

Everything scarce. Taken except  
Hirsutiaria carolina.

Stagnomantis carolina 1 juv. swept roadside.

Melanophus sp? Num. juvs - some  
collected

Conocephalus 2 sp.? ?? found.

Uta lat. 1 juv. swept

Uth. 11 + 448 = 459.

Uth. ins 1 + 91 = 92.

---

1953. 34 4.5 ms. W. of Holly Hill,  
McCreary Co., Kentucky. Elev. (an. + ch.)  
1550 feet. VIII. 12, 1953. (R.)

Pine woods of a barren type, some  
opened up by cuttings. Absolutely  
nothing etc. 1 Melanophus taken, and  
1 juv. Nemobius sp. ?

Uth 2 + 459 = 461.

Uth. ins. 0 + 92 = 92.

---

1953. 35 1.5 ms. S. of Kentucky line,  
near Itham, Scott Co., Tennessee. Elev. (an.)  
1475 feet. VIII. 12, 1953. (R.)

In mixed woods, heavier undergrowth, open  
spots in some, slashings, etc. Much  
dead branches and trips.

1953.35 (cont.)

Absolutely nothing except what was taken.

Hichromorpha in the heavier woods,  
♂ & ♀ in center.

Spharagemon tolli 1, all seen, in  
woods.

Melanophus sp. All juvs. (none taken)  
Conus 1 ad. taken.

Orth. 8 + 461 = 469.

Orth. in. 0 + 92 = 92.

---

1953.36 4.5 mi. S.E. of Wartburg, Morgan  
Co., Tenn. Elev. (an. - ch.) 1050 ft. VIII. 13, 1953.  
(R.)

In wood road and along border of pine  
& deciduous forest, and roadside. All  
species seen taken.

Heapheromera 1 juv. swept.

Nonotettix 1 juv. swept in wood road.

Hichromorpha 3 all in forest on wood road

Syrphula 1 ad. roadside.

Spharagemon tolli in woods.

Melanophus lundius 1 ♂ ditto.

" sp. juv. ditto.

Sundevia 1 ad. ♀ + juv. Former in  
wood clearing brush, juv. swept.

Cremophanes no. juvenis - all juvs.

Phylloscopus 18 1♀, both swept from  
wood under foliage.

Uth.  $21 + 469 = 490$ .

Uth. inc.  $0 + 92 = 92$

---

1953. 37 1.5 ms. N of Hariman,  
Morgan Co., Tenn. Elev. (an.) 1350 ft. VIII. 13, 1953.  
(R.).

Edge of mixed woods - roadside.  
Very little present - all seen taken.

Syrnula - 1 ad. ♂.

Melanophus lunicus 1 ad. ♂.

" sp. a number of juvs.

Uth.  $8 + 490 = 498$ .

Uth. inc.  $0 + 92 = 92$ .

---

1953. 38 Top of Walden Ridge, 6 ms. from  
E. of Pikeville, Blount Co., Tenn. Elev.  
(an. - ch.) 2050 feet. VIII. 13, 1953. (R.)

In pine and oak woods and roadside of  
same. Everything definitely recognized  
than ex. blisest. carol.

Chortoph. 1 very small juv. Roadside.

Syrnula 1 juv. ditto.

Chromomorphus 1 in woods.

Melanophus lunicus 1 ad. ♂ in woods.



1953.38 (cont.)

Melanophus sp. Numerous juvs. in  
both situations.

Sitta 1♀ in sun spot in woods in  
fall undergr.

Conocephalus juv. only, roadside.

Avth.  $12 + 498 = 510$ .

Other ins.  $0 + 92 = 92$ .

---

1953.39 1m. S. of Mt. Airy, Sequatchie Co.,  
Tenn. Elev. (an. ch.) 875 feet. VIII.13, 1953.  
(R.)

Border + edge of mixed deciduous and  
pine forest and roadside through same.  
Everything seen taken.

Alipheromera 1 juv. kept

Syrbula adum. Adults of both sexes a juv.  
General.

Alidromorpha Both sexes, chiefly in woods.

Hippiscus negrosus 1♂, roadside grass.

Spharopneuste elli In woods a roadside of same.

Achistrana 1 im. juv.

Melanophus sp. 1 juv.

Sitta 1♀ in shuttling along woods.

Chrysomitris lat. 1 juv. kept.

Avth.  $19 + 510 = 529$ .

Other ins.  $0 + 92 = 92$ .

---

1953.40 7 ms. W. of Guntersville,  
Marshall Co., Ala. Elev. (am.) 1100 feet  
VIII.14.1953. (R.)

In old field, part heavily grown up, along  
edge of pine <sup>oak</sup> woods and roadside.  
The old field work was most productive.  
Everything recognized taken.

Brunnea 2 juvs. (diff. instars) in tall  
woods.

Chlaenius juv. in the edge of woods.

Syrphid 1 imm. & juv. in old field chiefly.

Anthropoda juvs. road edge.

Chrysomelid 1 ♂ 1 ♀ ad. roadside

Hippodamia neglecta Old field - roadside.

Meloidae diff. Chiefly old field.

" sp. imm. juvs. - several.

Schizura amer. neglecta, active, old  
field chiefly. 2 ads. Taken.

Anthrenus whitii 1 ♀ kept in wood edge.

Cicada Neocicada sp. 1 juv. old field.

Cicada striata Old field - roadside.

Orth. 36 + 22 = 56.5.

Orth. imm. 0 + 92 = 92.

---

1953.41 Between Jopka and Baileytown,  
Cullman Co., Ala. Elev. (am.) 1150 ft.  
VIII.14.1953. (R.).

1953. 41 (cont.)

In partly cut-out pine woods with low  
corn left and wood road in same. Anything  
recognized taken, except Schistocerca  
americana, <sup>ad.</sup> which was fairly numerous.  
Diaperomera juv. - a number swept from  
low corn.

Syrphula - no adults, juv. taken.

Schistocerca 1 juv. taken - adults none.

Melanoplus juv. Numerous juv.

Utholium 1 juv. - roadside

Ceanothus 1 juv. swept low corn.

Orth 19 + 565 = 584.

Other ins. 0 + 92 = 92.

1953. 42 6 ms. W of Clarkston, Cullman  
Co., Ala. Elev. (an.) 1000 feet. VIII. 14. 1953. (R.)

In culled pine - decid. woods and roadside  
edge of same, also in <sup>very</sup> dry hollow with sedges.

All species recognized taken exc. ad.

Schistocerca amer.

Syrphula adm. 1 Female ♀ - juv. wood edge.

Anth. tropidia juv. ditto.

Aphidella plidna 1 ♀ roadside tangette,  
low corn.

Cephia xanth. 1 ditto.

Spharagnum belli 1 to wood edge.

Wippisus ryanus roadside - cut over  
tangette.

Melanoplus diff. 1 ♀ in sedge area.

" Sudderi 1 ♂ wood edge.

" sp. juv. found.

Sudderi sp. juv. wood edge.

Chelimeris sp. juv. in sedge -

Orth.  $16 + 584 = 600$

Other inv.  $0 + 92 = 92$

---

1953. 43 4 ms. E. of Double Springs,  
Winston Co., Ala. Elev. (an.) 700 feet.

VIII, 14, 1953. (R.)

Edge of pine forest - roadside.

Anything recognized taken.

Chelimeris 1 ♀ here roadside.

Chortophaga 1 ♀ roadside.

Amblytropidia 1 juv. in wood edge.

Rhombia 1 ♂ just in open edge of woods  
on leaves & among slashing material.

Orth.  $4 + 600 = 604$

Other inv.  $0 + 92 = 92$

---

1953. 44 6 miles SW. of Haleyville,  
Marion Co., Ala. Elev. (an.) 755 feet.

VIII, 14, 1953. (R.)

Roadside - open pine & woods with  
natural grass cover.

All species recognized taken.



1953.44 (cont.)

Syrphula juv.

Amblytropidia 1 juv. taken.

Oxypoda fulvipes roadside 1 ♀.

Melanoplus max. 1 ♂ roadside

" sp. (long-w.) 1 ♂ wood edge.

" sp. juv.

lett. 8 + 604 = 612.  
lett. in. 0 + 92 = 92.

1953.45 1 m. E. of Hamilton, Marion  
Co., Ala. Elev. (an.) 9250 feet. VIII. 14, 1953.  
(R.)

Edge of pine & oak woods - roadside. Nothing  
noticed in woods. Everything recognized  
taken.

Chrysomela juv. edge of woods, swept.

Syrphula Roadside 1 ♂ - juv.

Amblytropidia juv. road edge of woods

Hippodamia reynolds 1 ♂ road side.

Syrphogaster whit. 1 ♂, edge of woods.

Amblycorypha whit. 1 ♀ swept edge

of woods.

Melanoplus sp. juv.

lett. 15 + 612 = 627.  
lett. in.

0 + 92 = 92.

1953.46 4.5 m. W of Tremont, Itawamba  
Co., Mississippi. Elev. (an.) 425 ft. VIII. 14, 1953.  
(R.)

In tall and medium-height roadside  
woods - grass, with bare spots. Everything

recognized taken.

Crumeria 1 nearly adult nymph.

Syrphula 1 ♂.

Mermiria livittata 1 ♂ roadside, all sun.

Mermiria picta 1 ♂ ditto - all sun.

the two species but a few feet apart.

Hippicus negros 1 ♂, several others seen.

Roadside.

Aupha xanth. 1 ♂, ditto. Others seen.

Schistocerca amer. 1 juv. taken.

Melanophus curidus 1 ad. ♂.

" long. w. sp. 1 ♀ taken.

" sp. juv. taken.

Orth. 11 + 627 = 638.

Other in. 0 + 92 = 92.

---

1953. 47 3 ms. N. of Tupelo, Lee Co., Mississippi.  
Elev. (am.) 330 feet. VIII. 15, 1953. (R.)

Tall grass and weeds on rolling roadside,  
backed by deciduous woods. Everything  
recogn. taken exc. 1 ad. Schistocerca amer.

Stagmom. 1 juv. nymph.

Syrphula a number, chiefly juvs. 1 ad. - 1 juv.  
taken.

Mermiria livittata 4 ♀, green + brown phases.  
Active fliers.

Amblytropidia 1 juv.

1953.47 (cont.).

Hippiscus negrus Numerous. 1 Taken.

Melanoplus diff. a few. 1 taken.

" sp. juv.

Uchulium sp. 1 ♂, 1 ♀. Rather common,  
in tall grass - all noticed.

Uth. 13 + 688 = 651.

Uth. inc. 0 + 92 = 92.

---

1953.48 1 m. S. of Booneville, Prentiss  
Co., Mississippi. Elev. (an.) 475 feet. VIII.15,  
1953. (R.).

Broad roadside barquette with low corn,  
at border of deciduous woods, chiefly oak.

Almost nothing but Spharagnum belli  
seen in woods. Everything else recogn.  
in tang. taken except Schistocerca amer.

Chrysomera juv numbers - 1 kept.

Syrphula - a few.

Mermia picta - a few, 1 ♂ 1 ♀ - juv. taken.

Aphis xanthoptera a few, 1 taken.

Hippiscus negrus - Numerous.

Spharagnum belli 1 taken, in woods.

Melanoplus hirtellus a pair, taken separately,  
in deep corn.

Melanoplus mix. 1 ad.

" sp. 1 juv.

Scudderina sp. 1 ♀ from woods border.

Anthracopha albini 1 ♀ kept.

Uth. 19 + 651 = 670.

Uth. inc. 0 + 92 = 92.

1953.49 5 ms. E. of Corinth, Alcorn  
Co., Mississippi. Elev. (an.) 575 feet.  
VIII, 15, 1953. (R.)

Roadside drain with very tall and  
coarse grass. (Brunneria only there)  
in mixed pine - oak woods area,  
and on cleared shoulder bordering road.  
Everything recognizable. Taken.

Brunneria numerous in a limited area  
(see above) - few adults taken, while  
there were much more numerous juvs.  
Diaphanomeria no juvs. - swept on  
shoulder.

Syrphula 1 ad. taken - 1 juv. - other adults  
seen.

Mermiria juvs. only.

Melanophus diff. a few, none taken.

" mix. 1 ad. taken

Chistocerca ann. 1 juv. taken - no  
adults seen.

Orth. 21 + 670 = 691.

Orth. 0 + 92 = 92.

---

1953.50 3 ms. E. of Iuka, Tishomingo  
Co., Mississippi. Elev. (an.) 575 feet.  
VIII, 15, 1953. (R.)



1953.50 (cont.).

Roadside drain and barrette with Fall  
grass. Anything recog. taken.

Syrphula adum. Numerous.

Mermiria virillata 1♂ taken.

" picta More numerous. Both sexes  
taken, most adults female, juvs.  
also ~~also~~ numerous.

Anthytropidia 1 juv. taken.

Arphia xanth. 1 taken.

Melanoplus diff. Abundant - both sexes taken.

" sp. less a number.

Scudderia 1♀. kept.

Orchelimum vulgar 1♂ kept.

Coreophalus sp. A few.

Orth 21 + 691 = 712.

Orth ins. 0 + 92 = 92

---

1953.51 E. 3 ms. E. of Tusculum, Colbert  
Co., Ala. Elev. (an.) 600 feet. VIII. 15, 1953.  
(R.).

Roadside steep bank on stony outcrop with  
dry + tough native com. Neurostictus  
only in a very limited area, all seen taken.

Chlorophomera juvs. numerous - a few  
taken.

Stagmomantis 1 juv. taken.

Brunneria 1 juv. taken

~~the~~ Hydula 2 taken - numer.

Hippiscus rufus Mun. a pair taken.

Melanoplus diff. Abundant.

" Sp. w 2 adults - juv.

Neoperistellus brevimanis 1 ♂, 2 ♀  
taken (see above)

Orth.  $23 + 712 = 735$ .

Orth. inv.  $0 + 92 = 92$ .

---

1953.52 1 m. W. of Greenbrier, Limestone  
Co., Ala. Elev. (approx.) 800 feet. VIII. 15, 1953  
(R.)

Old field and dried-out bottom of part  
of a pond (remaining nearly), alongside  
of deciduous woods.

Tetrigids - all in old pond bottom -  
now virtually dry.

Paratettix

Tettigidea } see above - numerous.

Chironomus 1 juv. - 1 ad. ♀.

Chortophaga 1 ad.

Hippiscus rufus 1 ad. 1 ♀.

Mel. mex. a few - pair taken.

" Sp. w. 1 ♂.

" diff. a few - 1 taken.

Chironomus 1 large juv. taken.

Orth.  $34 + 735 = 769$ .

Orth. inv.  $0 + 92 = 92$ .

---

1953.53. 1 m. N. of Paint Rock, Jackson Co., Ala.  
Elev. (ch.) 574 feet. VIII. 16 1953. (R.)

Roadside only. Very poor, nothing but  
captures seen.

Systula 1 taken.

Sch. amer. 1 juv. taken - adults seen.

Arctulium 1 juv. ♀ taken

Conosphaerus - a number.

Orth. 7 + 735 = 742:

Other ins 0 + 92 = 92.

---

1953.54 Betw. Woodville and Kimrock,  
Jackson Co., Ala. Elev. (an. ch.) 600 feet.  
VIII. 16, 1953. (R.)

Roadside with tall grass and weeds.  
Very little. Everything seen taken etc.

Schist. amer.

Orth. 8 + 742 = 750

Other ins. 0 + 92 = 92.

<u>Angitia</u> 2 ant.
<u>Melanophus</u> 2 sp.
" diff.
" juv.
<u>Conospha.</u> 4 sp.

---

1953.55 6 ms. S.E. of Scottsboro, Jackson  
Co., Ala. Elev. (an.) 850 ft. VIII. 16, 1953. (R.)

Roadside tall weeds - little open to  
work. Hillside. Everything seen taken.  
Diapheromera - two large juvs. kept.

Melanophus diff. numerous - 2 taken.

" Arctulium 1 ♂ taken.

" Th. w. 2 ♂

" sp. juvs.

Coryph - a few - 1 Taken.

Orth.  $13 + 750 = 763$ .

Other ins  $0 + 92 = 92$ .

---

1953.56 1 m. W. of Rainsville,  
H. Kall Co, Ala. Elev. (an.) 1375 feet.  
VIII. 16. 1953. (R.)

Roadside with mixed woods on one side.  
Very little. Everything seen taken exc.  
Schist. amer., Elisasteria carolina &  
Aphis xanthoptera.

Melanoplus diff. num. - 1 Taken.

Orth.  $2 + 763 = 765$ .

Other ins.  $0 + 92 = 92$ .

---

1953.57 2 ms. S.E. of Mentone, H. Kall Co, Ala. Elev. (ch.) 1600 feet. VIII. 16, 1953.  
(R.)

Roadside through mixed woods. Everything  
seen taken exc. Schist. amer. & Sunderia  
sp.

Amphimerus 1 juv. impt.

Syrphula a number - 1 Taken.

Chortophaga 1 juv. impt.

Melanoplus Th. w 1 ♂ taken

" sp. juv. num.

Orth. 1 ♂ & 1 juv. ♀. In Falla grass.

Orth.  $10 + 765 = 775$ .

Other ins.  $0 + 92 = 92$ .

---



1953. 58 3.5 ms. E. of Mendo,  
Chattooga Co., Ga. Elev. (an.) 550 feet  
VIII. 16. 1953. (R.)

Roadside in mixed woods.

Nothing ex. 1 Melanoplus th. w. J.

Utth.  $1 + 775 = 776$ .

Utth. vis.  $0 + 92 = 92$ .

---

1953. 59 8 ms. W. of La Fayette, Walker Co.,  
Ga. Elev. (an.) 950 feet. VIII. 16. 1953. (R.)

Roadside bordering mixed woods.

Everything run taken exc. Histiogaster  
carolina.

Blasphemia 1 juv. largest

Antlytropidea 1 juv.

Chortophaga v. 1 ad.

Wippiscus myxus 1 ad.

Melanoplus juv. 1.

Utth.  $5 + 776 = 781$ .

Utth. vis.  $0 + 92 = 92$

---

1953. 60 South base of Fort Mountain, 3 ms.  
E. of Chatsworth, Murray Co., Ga. Elev. (an.)  
1200 feet. VIII. 17, 1953. (R.)

Longest - gray. Roadside and wood edge in  
mixed forest. Everything recog. taken. except  
juv. Schist. curv. & Sundaria sp.





Syrbula adum. 1 ♂ - all seen  
Amphispiza sw. juvs.  
Chondestes 1 ♀ - all seen  
Hippiscus negros 1 ♂ - sw. seen.  
Geothlypis car. sw. seen - 1 taken  
Archelimum vulgare 1 ♂.  
Coronophorus 2 spp. ? 1 ad. - sw. juvs.  
Coccyzus 1 juv.  
Orth. 10 + 781 = 791  
Other ins. 0 + 92 = 92.

---

1953.61 South slope of Fort Mountain, 6 ms.  
E. of Chatsworth, Murray Co., Ga. Elev. (approx.)  
2325 feet. VIII. 17. 1953. (R.)

Steep road border in heavy mixed forest.  
Very little. Everything seen taken.

Hippiscus negros 1 ♂ - all seen.

Coccyzus sp. 1 ♂ swept

Orth. 2 + 791 = 793.

Other ins. 2 + 92 = 94.

---

1953.62 Braestown Gap, 2 ms. NE.  
of Young Harris, Towns Co., Ga. Elev.  
(approx.) 2210 feet. VIII. 17. 1953. (R.).

Everything soaked by rain - fog. Narrow gap  
in deciduous forest. Nothing evident except  
these taken.

Tetrix - 1 swept from ground. Chortophaga  
1 juv. Melanophus sp. juv.

Orth. 3 + 793 = 796

Other ins. 0 + 94 = 94



1953.63 2 ms. SW. of Glade Gap, Clay  
Co., N.C. Elev. (ab.) 2600 feet. VIII. 17, 1953.  
(R.).

Everything soaked by recent rain + fog.  
Roadside shoulder and adjoining cut  
bank. Everything seen taken

Anthytropidea no. juv.

Ichneumon Amer. 1 very small juv.

Melanophus curvipes 1 ad. ♂.

With 4 + 296 = 800.

Other vis 1 + 94 = 95.

---

1953.64 ~~no lot.~~

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1953.65 Singecat Ridge Crossing,  
Blue Ridge Parkway, Mc Dowell Co.,  
N.C. Elev. (b.m.) 3406 feet. VIII. 18, 1953.

In rain Road edge of deciduous forest  
and grassy patches. Everything seen  
taken.

Melanophus divinus? 1 ♂ in low cone and  
dead leaves of ground litter.

Mel. sp. 4 juvs.

Chortophaga 1 very small juv.

Atlanthus monticola 1 ♂ in same habitat as  
M. divinus?

Oecanthus sp. 1 juv.

With 6 + 800 = 806.

Other vis. 1 + 95 = 96.

---

1953.66 New Buck Creek Crossing, Blue  
Ridge Parkway, McDowell Co., N.C. Elev.  
(an.) 3800 ft. VII. 18, 1953. (R.)

very wet, after rain + fog coming in.

Edge of deciduous forest + cut bank.  
Everything seen taken. Insects almost  
paralyzed by cool fog + rain

Chortophaga 1 pair - Taken separately  
in that pass.

Chlorostoma can 3 Taken in pass, almost  
numb. + 1 juv.

Melanoplus mus. 1 J.

Dryopteris acuminata 1 ad. in pass.

Hemolius sp. 1 juv " "

Orth. 9 + 806 = 815.

Orth. in 0 + 96 = 96

---

1953.67

1953 64 Blue Ridge Parkway, 8 ms. N.E.  
of Asheville, Buncombe Co., N.C. Elev. (app.)  
3100 feet. (R.) VIII. 18, 1953

On narrow shoulder on side of road with  
small patch of natural cover.

Chortophaga very small juv. Road edge.

Melanophus derius? 1 ♂. In dead leaves  
at edge of woods.

Melanophus sp. juv. in roadside.

Attractus monticola. Same habitat as  
Mel. derius?

Other species seen: Desmarestia car.,  
Aphid xanth, and ad. Chortophaga.

Orth 6 + 800 = 806.

Orth vis. 1 + 95 = 96.

---

1953. 65 Blue Ridge Parkway, <sup>near Craggy Meadows,</sup> W.  
Mt. Mitchell (12 ms. from 1953. 64), Buncombe  
Co., N.C. Elev. approx. 5500 feet. VIII. 18, 1953.  
(R.) Lookout point - pass.

Heavy fog and drizzle. Everything  
seen taken.

Chortophaga 1 pair - taken separately in  
thrust pass.

Desmarestia car. 3 taken in pass, almost  
number count - plus 1 juv.

Melanophus max. 1 ♂. in pass.

Gryllus assimilis 1 ad. in pass.

Neurostus sp. 1 juv. "

Orth. 9 + 806 = 815.

Orth vis. 0 + 96 = 96.

1953.66 Singersat Ridge Crossing,  
Blue Ridge Parkway, Mc Howell Co., N. C.  
Elev (b.m.) 3406 feet VIII. 18, 1953. (R.)

In rain. Road edge of deciduous  
forest and grassy patches. Everything  
seen there.

Chlorophanes 1 ♂.

Melanophus f. - 2. 1 ♂, 2 ♀.

" sp. f. - 2. 1 ♂, 2 ♀.

Orth. 7 + 815 = 822.

Orth. in. 2 + 96 = 98.

---

1953.67 Near Buck Creek Crossing,  
Blue Ridge Parkway, Mc Howell Co., N. C.  
Elev. (a.m.) 3800 ft. VIII. 18, 1953. (R.)

Wet - after rain.

Edge of deciduous forest and cut bank.  
Everything seen taken.

Melanophus mex. 1 ♂.

" lucius 1 ♂, 2 ♀

" divinus? 1 ♂.

Orth. 5 + 822 = 827.

Orth. in. 2 + 98 = 100.

---



1953.68 Chestov View, Blue Ridge Parkway,  
near Linville Falls, Burke Co., N.C. Elev. (b.m.)  
4110 feet. Fog and drizzle. Everything  
drenched  
VIII. 18, 1953.

Edge of deciduous forest and grassy road  
edge. Everything seen taken. Net work  
almost impossible.

Nonotettix 1 juv. rupt.

Syrphula adum. 1 ♂.

Melanophus f. r. 2 ♂.

" luridus 1 ♀.

Orth. 5 + 827 = 832.

Uther ins. 2 + 100 = 102.

1953.69 Along South Fork of New River,  
4 ms. S. of Independence, Grayson Co., Va.  
(Immediately N of N.C. state line) Elev. (ch.)  
2400 feet VIII. 19, 1953. (R.).

Roadside slopes + drain and pocket of <sup>low</sup> corn  
extending into deciduous woods. Rather unusual  
loc. sole place for M. divinus. Oecanthus sp.  
rupt from tree fringe. Everything seen  
taken.

Overcast with heavy light fog.

Cryptellula plidua 1 ♀ - had no caudal cints! <sup>roadside.</sup>

Aeshia x anth. 1 ad.

Chrysophaga 1 juv. Rind 2 juvs. ditts.

Melanophus luridus 1 ad in drain.

" fun - ulm ad. both spe, roadside.

" divinus? 3 ♂, 4 ♀, 1 juv. see above. None  
lost as far as I know.

Melanoplus sp. Numerous juvs.  
Conomphalus nemoralis? A few, in  
same habitat as M. devius.  
Conomphalus straight wings 1 ♀ roadside  
Nemobius 1 ♀ Roadside.

Certs 31 + 832 = 863.

Other ins. 2 + 102 = 104.

---

1953. 70 Along Peach Bottom Creek, ~~4.5~~ 4.5  
miles NW of Independence, Grayson Co., Va.

Elev. (an.) 3250 feet. VIII. 19, 1953. (R.)

Roadside through <sup>Overcast with high fog.</sup> cleared land with  
patches of deciduous forest. Everything  
seen taken.

Melanoplus devius? 1 juv.

" sp. 1 juv.

Conomphalus nemoralis? 1 juv.

Nemobius fasc. 1 ♂.

" carolinus 1 ♂, 2 ♀.

Certs <sup>an.</sup> 7 + 863 = 870.

Other ins. 4 + 104 = 108

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1953. 71 South Hope of Iron Mountain,  
C. W. of Corner Rock, 13 ms. N. of Independence,  
Grayson Co., Va. Elev. (an.) 3125 feet.  
VIII. 19, 1953. (R.)

Overcast, high fog, cool.

1953.71 (cont.)

Roadside and in cove in mixed forest.  
Everything seen taken except Hiccirosteria  
carolina.

Hippiscus nyonius 1 sm. juv.

Spharagemon telli 1 taken at wood edge in  
cove, cove.

Melanophrys f. r. Numerous in cove.

Conocoryphus sp. 1 juv.

Urananthus sp. 1 ad, 1 juv.

With 11 + 870 = 881

With ins. 6 + 108 = 114

---

1953.72 Road crossing of Brushy Mtn.,  
2 ms. N. of Sugar Grove, Smyth Co., Va.

Elev. (ch.) 3100 ft. VIII, 19, 1953. (R.)

Roadside in mixed heavy forest. Nothing  
at all, ex. 1 juv. Teffia.

With. 1 + 881 = 882.

With ins. 0 + 114 = 114

---

1953.73 Road crossing of Walker Mtn., ~~2.5~~ 8.5  
miles N. of Marion, Smyth Co., Va. Elev.  
(b.m.) 3453 feet. VIII. 20, 1953. (R.)

Narrow road edges (mainly with  
woods) and at crossing under a very  
steep bare cut rock face (too steep to walk).  
Anything recognizable.

Chrysosterna caudata numerous, 2 taken

Sphragnum billi a few, 1 taken.

Melanophus diff. 1 juv. taken

" sp. 1 juv. taken.

Scolecophagus sp. 1 ♂ taken.

Urocyon sp. 1 small juv.

Orth. 8 + 882 = 890.

Other in. 4 + 114 = 118

---

1953.74 Road crossing of Brushy Mtn.,  
-Tazewell  
4 ms. N. of Chatham Hill, Smyth Co., Va.

Elev. (l. m) 3064 feet. VIII. 20, 1958. (R.).

Roadside to deciduous forest. Area  
limited, much disturbed. Everything  
recog. taken.

Tritax sp. 1 impt.

Tritax sp. 1 impt.

Chrysomela u. 1 ♂.

Chrysosterna ca. a few, 1 taken.

Sphragnum billi 2 taken.

Melanophus diff. 1 ♂ taken.

" curvicauda 1 ♂ taken.

Orth. 8 + 890 = 898.

Other in. 5 + 118 = 123

---



1953.75 Cove Creek, on Clear Fork, Tazewell Co., Va. Elev. (ch.) 2350 feet. VIII. 20, 1953. (R.)

Mountain valley roadside vegetation, flanked by cultivated fields on the side and stream side tall growth on the other.

Everything recogn. Taken ex. Heisteria car.

Tettigidea sex impt.

Chironompha v. 1♂, 2♀.

Melanophus f. v. 1♂.

Cnemidophorus a few adults of both sexes.

Nerobius Both sexes adult.

Phyllisopterus 2♀♀ impt from tall weeds, etc.

Orth. 14 + 898 = 912.

Other ins. 4 + 123 = 127.

---

1953.76 4 ms. SW. of Bland, Bland Co., Va. Elev. (an. - ch.) 2750 feet. VIII. 20, 1953. (R.)

Edge of deciduous woods and broad stretch of roadside vegetation.

Everything recogn. taken.

Syrphula adu. 1 juv. all seen.

Encyrtophus ord. 1 juv.

Heisteria car. A number - 1 taken.

Spharagemon Wli " " " "

Melanophus aff. 1♂ taken - others seen.

" lunatus 1 ad. ♂ + 1 juv. taken

" f. v. Numerous. Both sexes taken.

Succinea sp. 1 ♂ taken.

Corcyphalus Reprs. of 2 spp. taken.

Menidia " " " " "

Oreanthus 1 ad. ♂ taken, empty

Orth.  $19 + 912 = 931$ .

Orth. ins.  $3 + 127 = 130$ .

---

1953.77 South slope of Walker Mtn.  
Wythe Co., Va. Elev (am) 3450 feet. VIII.20, 1953.  
(R.)

Roadside on steep slopes of mixed forest,  
small areas of rock outcrop with resultant  
rock wash

Everything recognizable taken exc. kleinost c.

Cephus pelidna 1 in grass - all seen.

Melanophus f. ~. Numerous - 2 taken.

" lunatus 1 ad. - 1 juv. taken.

Orth  $5 + 931 = 936$ .

Orth. ins.  $1 + 130 = 131$ .

---

1953.78 Blue Ridge Parkway, near  
Blue Ridge Springs, Botetourt Co.,  
Va Elev. (am. - ch.) 825 feet VIII.21, 1953.  
(R.).

Along edge of decid. forest and grassy  
roadside. Everything seen taken.

1953. 78 (cont.)

Sylvia adum. Num., adults & juvs.

Chondestes a few juvs.

Amphisp. xanth. Num. ads. & a few juvs.

Hippiscus rufus 1 ♂ taken

Melanoplus th. w. ♂ & ♀ taken small ones.

" juvs. sp. ? juvs. taken.

" lunatus 1 ♂ - 1 ♀. all seen.

Merula sp. 1 ♂ & 1 ♀

Orth. 32 + 936 = 968.

Other ins. 2 + 131 = 133.

---

1953. 79 Blue Ridge Parkway, inned. above

Lynchburg Mines, Botetourt Co., Va. Elev. (sea).

1875 feet. VIII. 21. 1953. (R.)

Edge of deciduous & pine forest and grassy  
tonguetts. Everything seen taken except

Hir. st. ca.

Sylvia adum. ♂ & ♀ only seen & taken.

Hippiscus rufus a few. 1 ♂ 1 ♀ taken.

Melanoplus f. r. Abundant.

Conocephalus stratus a few.

Quercus sp. 1 ♀ kept.

Orth. 14 + 968 = 982.

Other ins. 1 + 133 = 134.

---

1953.80 Blue Ridge Parkway, NW. of  
Buford, Bedford Co., Va. Elev (an.)  
2250 feet. VIII. 21, 1953. (R.)

Roadside - in low pine-oak woods.  
Melanophus f. r. in various roadside.  
Anything recognized taken exc. hirsut  
carolina. Much more fun in woods.

Syrnula adu. Numerous. Males only taken.  
Pharagmus belli a few in woods, 2 taken.  
Melanophus f. r. see above. <sup>along road</sup>

" lucida 1 ♂ in wood edge.

Scudderia sp. 1 ♀ swept.

Pterophylla 1 ♀ swept from low ground  
com, largely swept from.

Conosyphus stilis a few.

Oreanthus 3 adults taken, swept.

With 16 + 982 = 998.

After inc. 0 + 134 = 134

---

1953.81 Near Bearwallow Gap, Blue  
Ridge Parkway, Bedford Co., Va. Elev. (an.)  
2125 feet VIII. 21, 1953. (1.5 m. NE. of 1953.80)

Roadside and decid. forest, virtually  
nothing in latter. Anything recogn. taken  
exc. hirsut-car. & Cerypha xanth.

Chortophaga 1 ad. ♀ very lateral

Melanophus f. r. Numerous.



1953.81 (cont.)

Melanophes diff. A few, both sexes taken.

Acronyctus 1 ♀ empty.

With. 6 + 998 = 1004.

With. inc. 0 + 134 = 134

---

1953.82 Union Mtn. Lookout, Blue Ridge  
Parkway, Bedford Co., Va. Elev. (a. b. m.) 3195  
feet. VIII. 21, 1953. (R.)

Edge of decid. forest and very dry roadside  
with mowed short grass. Everything seen taken  
exc. Hispid. car.

Syrphula adum. adults - 2 instars juv.

Chortophaga ad. ♀ - juv in 2 instars.

Asphidia xanth. 1 juv.

Hippisus reposeus 1 juv.

Melanophes f. in dec.

" diff. tr. 1 taken

Carayothalpus A few

With. 16 + 1004 = 1020.

With. inc. 2 + 134 = 136.

---

1953.83 Arnold Valley Lookout, Blue  
Ridge Parkway, Bedford Co., Va. Elev.  
(b. m.) 3660 feet. VIII. 21, 1953. (R.)

Edge of decid. forest with a few hemlocks,  
and a grassy shoulder. Very dry. Everything  
seen taken.

Syrphula ad. A few.

Chortophaga. tr. juv. taken.

Hippiscus rufus Numerous, both sexes  
Taken.

Microsternus can. A number. 1 Taken.

Melanoplus f. 2. Numerous.

" viridatus A single male seen - Taken.

Schistocerca amer 1 juv. Taken

With 12 + 1020 = 1032.

Other ins. 0 + 136 = 136.

---

1953. 84 Blue Ridge Parkway about  
8 ms. S of Snowden, Bedford Co., Va.  
Elev (an) / 1375 feet. VIII. 21, 1953. (R.)  
Border of decid. forest - grassy roadside.  
Most material taken at innerd. wood edge.  
Nothing in woods. Everything seen Taken.

Tettigidea 1 juv.  
Chortophaga. A few adults.

Microsternus can. A few.

Hippiscus rufus Alto.

Phanagoria elli 1 Taken

Aphidius xanth. 1 Taken.

Melanoplus f. 2. A few.

" viridatus 2 males Taken.

" sh. w. Small series of both  
sexes - wood edge only.

Urochlamys sp. 1 ♀ juv.

Curculionidae 1 juv.

Urochlamys 1 ♀  
With 18 + 1032 = 1050.

Other ins. 0 + 136 = 136.

1953.85- 4 ms W of Broadway.  
Rockingham Co., Va. Elev. (ch.) 1000 feet.  
VIII. 22, 1953. (R.).

Roadside, bordered by decid. woods, and  
wood road in latter with heavy undergrowth.  
Anything seen Taken.

Tettigidea 1 nymph.

Wichnom. vir. 1 ♀ along wood road.

Chortoph. 1 juv. nymph.

Melanoplus f. 2. Numerous roadside  
" Rh. w. 1 ♀ on wood road

Orchel. vulgare A few adults in tall  
roadside weeds.

Amorophila num. ditto.

Anaxipha Abundant, ditto musing in  
wood road thicket.

Hapithus ditto.

Cicanthus nymph.

Orth. 65 + 1050 = 1115.

Other ins. 7 + 136 = 143.

---

1953.86. 4 ms due N. of Fulk's Run, Rocking-  
ham Co., Va. Elev. (an.) 1200 ft. VIII. 22.  
1953. (R.).

Old field and stony dry stream bed.  
Anything seen Taken etc. Schist. ann.

Spharagmus Wli. 1 Taken.

Melanopl. f. 2. Num. 1 Taken.

Cicanthus hw. nymph.

Orth. 4 + 1115 = 1119.

Other ins. 7 + 143 = 150.

1953.87 2.5<sup>mi</sup> W. of Lost River (Town),  
Lost River Valley, Hardy Co., W. Va. Elev.  
(an.) 1400 feet VIII. 22, 1953. (R.).  
Old quarry floor and roadside very  
little. Everything seen taken exc. blissos  
can.

Sphingonotus lilli A. Munk - 2 Taken.  
Melanophus sp. 2. Munk. 1 Taken.  
Conocoph. trilinea 14 Taken.

Crab. 4 + 1119 = 1123.

Other ins. 1 + 150 = 151.

---

1953.88 1 m. NW of Hanging Rock,  
Hardy Co., W. Va. Elev. (an.) 1300 ft.  
VIII. 22, 1953. (R.)

Edge of mixed forest, roadside and  
windy border of Lost River. Everything seen  
to Taken exc. blissos, can.

Melanopl. curvipes - a few.  
" Th. W. 1 ♂, forest edge.

Anisocampa rot. 1 ♂, swept.

Conocoph. - a few.

Ac. cantharus - 1 swept.

Anisipha - four swept.

Crab. 11 + 1123 = 1134

Other ins. 0 + 151 = 151.

---



1953.89 Road crossing of Sandy Ridge  
above Lost River, Hardy Co., W. Va. Elev.  
(v.m.) 1467 feet. VIII. 22, 1953. (R.).

In and along edge of mixed decid. & pine  
forest. Everything seen taken exc. Whist.  
car.

Sphragnum elli 1 taken.

Melanophus tristatus 1 banded ♀ taken.  
all seen.

Melanophus lunatus small series of  
with moss.

Sp. Schistocerca sp. app. not Amer. from  
juvs. swept.

Orth 12 + 1134 = 1146.

Orth vis. 0 + 151 = 151.

1953.90 Intermount, Hampshire Co., W. Va.  
Elev. (an. & ch.). 960 feet. VIII. 22, 1953. (R.)

Border of mixed decid. & pine forest and  
old field. Everything seen taken exc.

Whist. car. & Scudder sp.

Syrphula adum. Ads. & juvs. seen & taken.

Sphragnum elli a few, 1 taken.

Encyrtotaphus trid. 1 ad. & 1 juv. taken - all seen.

Melanopl. f. r. seen

" sp. juv.

Conocoph. strictus - 1 taken.

Urananthus - 1 swept.

Orth. 17 + 1146 = 1163.

Orth vis. 0 + 151 = 151

1953.91. 3.5 mo. SW. of Gore,  
Frederick Co., Va. Elev (an.) 1125 feet.  
VIII. 22. 1953. (R.) Roadside and border  
of and in mixed woodland. Very little  
at all. Everything seen taken.

Syrphula - 1 ad. taken.

Melanoph. f. 2. A numb. - 2 taken

Oecanthus 1 - swept.

Orth 4 + 1163 = 1167.

Other ins. 0 + 151 = 151.

---

1953.92 3 mo. NW. of Main, Frederick  
Co., Va. Elev (an.) 745 feet. VIII. 23. 1953.  
(R.)

Roadside, shoulder of same, & decid.  
forest. Nothing in latter. Everything  
seen taken exc. Hiscopteria carolina.

Diapheromera 1 juv. swept.

Heteromorphus v. 1 ♀ - all seen.

Spharagemon bolli 1 taken - sev. others seen.

Melanoplus f. 2. Number.

" Ph. w. 2 ♂ taken.

Conneptolus sp. swept.

Orth. 12 + 1167 = 1179.

Other ins. 0 + 151 = 151

---

1953.93 4 ms. S. of Ridge (1 m. N. of Va-  
W. Va line), Morgan Co., Va. Elev. (an.) 840 feet.  
VIII. 23. 1953. (R.)

Edge of deciduous forest - in some <sup>wood</sup> nothing.

Everything seen taken except hirsutaria  
car. & th. w. Melanophus (lost).

Amphispiza 2 juvs. nupt.

Chloronotus c. 1 ♀ taken.

Empidonax ind. 2 large juvs. Taken -  
all seen.

Geothlypis trichas 1 ♀ taken.

Melanoph. f. r. a few.

" diff. 1 ♂ taken.

Sitta sp. 1 ♀ oak scrub.

Corvus 1 ♂ taken.

Quercus 1 ad. ♂ + sev. juvs.

Orth. 13 + 1179 = 1192.

Other ins. 0 + 151 = 151.

---

1953.94 4.5 ms. NNE of Berkeley Springs.  
Morgan Co., W. Va. ~~Elev. (an.) about~~ VIII. 23. 1953.  
(R.) Elev. ca. 500 feet (ch.)

Roadside in mixed woods - one side

fall woods, the other a steep rocky cut.

Melanophus th. w. in both situations.

Everything seen taken ex c. Melanophus  
f. r.

hirsutaria carolina - 1 Taken

Mel. th. w. A small series - seen above.

Conocoryphus - Not taken.

Orth.  $14 + 1192 = 1206$ .

Orth. ins.  $0 + 151 = 151$ .

---

1953.95 2 ms. W. of Jun Ridge (on  
U.S. 40), Allegany Co., Md. Elev. (an.) 600 ft.  
VIII. 23. 1953. (R.).

Roadside and along thinned out decid.  
woods - old fields.

Everything seen taken exc. Blissasteria  
cardina.

Alphulella speciosa 1♀ - all seen.

Melanoplus fi-r. In taken - species  
numerous.

Sudderia - 1♀ oak scrub.

Conocoryphus - small series of 22.

Ceanothus 1♀ particular species.

Orth.  $9 + 1206 = 1215$ .

Orth. ins.  $0 + 151 = 151$ .

---

1953.96 East base of Warrior Ridge,  
3 ms. N. of Black Valley Gap, Bedford  
Co., Pa. Elev. (an. + ch.) 1000 feet. VIII. 23. 1953.  
(R.)

Roadside in deciduous woods. Everything  
seen taken exc. Blissaster can. + 1 Hippodamia  
rupens.



1953.96 (cont)

Tetrix 1 swept from grass.

Diaphanura fem. 1 ♂ ad. swept.

Amblycorypha not. 1 ♂ 1 ♀ Taken separately.

Conocephalus 1 ♀.

Oreanthus 1 swept.

Orth.  $6 + 1215 = 1221$ .

Orth. ins.  $0 + 151 = 151$ .

---

1953.97 Clear Ridge, 3.25 ms. NE. of  
Chambersville, Bedford Co., Penna. Elev.  
(ch.) 1550 feet. VII.23, 1953. (R.).

Roadside, on one side decid. <sup>woods</sup> forest, on  
the other cultivated fields. Everything seen  
taken.

Helichromorpha viridis 1 ♂.

Missotia cincta A few, 1 taken.

Melanophus diff. 1 taken - sev. juvs. also  
seen.

" f. l. seen 1 taken.

Sundania sw. ♀♀ taken

Orth.  $6 + 1221 = 1227$ .

Orth. ins.  $0 + 151 = 151$ .

---

1953.98 2 ms. N. of Clearville.

Bedford Co., Pa. Elev. (ch.) 1480 feet.  
VII.23, 1953.

Roadside in decid. woods. little  
evident, but everything seen taken.

Sphragnum collii 1 Taken, all seen.

Melanophus f. 2. A few - 1 Taken.

Conocyclus - with many Taken.

Neurobis 1 ♂ 1 ♀, in ground.

Uth 7 + 1227 = 1234.

Uth in. 1 + 151 = 152.

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1954.

No number. 2 mi. W. of Brookshire,  
Waller Co., Texas. 11.9.1954. (R.)

Roadside. Notes in personal diary.

Orth. 8

Other ins. 0

1954. 1 6.7 miles S.W. of Junction, Kinzie Co.,  
Texas. Elev. (ann.) 1900 feet. 11.11.1954. (R.)

Roadside along S. Kansas River under bluffs.

Grass patches in cattle <sup>they</sup> country, with some largely  
mesquite. Unmistakenly somewhat windy.

Microchloa 14. all seen.

Opis Two taken separately, all seen.

Cyrtia 1 juv. & 1 ad. all seen.

Chortophaga Two seen, 1 taken.

Trachydrachis 18 taken, all seen.

Trinervetropis pallidip. Num. juvs. in various stages.

Paraidemna ? 1 very small juv.

Melanoplus ? 1 juv. very small. swept.

Pediastus 1 very small juv. swept.

Orth. 18 + 8 = 26.

Other ins. 32 + 0 = 32.

1954. 2 8  
70 m. S. of Telegraph, Kinzie Co., Texas.

Elev. (ann.) 1800 feet. 11.11.1954. (R.)

On bank of Edwards Plateau limestone on W.

side of S. Blanco River. Surface solid or broken whitish limestone. Cover chiefly scattered dry brush brush and curly grass. Scattered open tree cover - some mesquite.

Microchloa. 1 taken (♀) - all run.

Hippiscus 1 juv. taken - all run.

Platylastota 3 run - 2 taken. All on bare limestone.

Argia. 1 ♂ taken, all run.

Wth.  $7 + 26 = 33$ .

Wth. no. 2  $+ 32 = 34$ .

---

1954.3 6.5 mo. SW. of Telegraph, Edwards Co., Texas. Elev. (an.) 2275 feet. IV. 11. 1954. (R)

Edwards plateau surface of rolling limestone. Work done roadside (climbers eaten out). Scattered brush and curly grass, low mesquite - thin oak, with most of surface broken white limestone.

Everything seen taken ex c. 2 adult Hippiscus, which the high wind carried far away after the net being wind snagged.

Microchloa 1 ♂ 1 ♀ taken separately. ♀ has Pooleana luddiana type of coloration.

Platylastota 1 ♀.

Hippiscus 2 ♀♀ in instar preceding mat.

Trim. pallidus. 1 ad.

Wth.  $6 + 33 = 39$

Wth. no. 3  $+ 34 = 37$

---

1954.4 10 ms. SW. of Telegraph, Edwards Co.,  
Texas. Elev. (un.) 2290 ft. IV. 11. 1954. (R.)  
On Edwards Plateau limestone. Roadside.  
Very little, all seen. Taken.

Microchloa. 1 ad. ♀.

Orth. 1 + 39 = 40

Other ins. 2 + 37 = 39

1954.5 3 ms. W. of Roosevelt, Sutton Co., Texas.  
Elev. 2400 ft. IV. 12. 1954. (R.)

Roadside. Edwards plateau surface - scattered  
brush grass + curly grass, with other low plants.

No C. except Microchloa. Two seen, 1 taken.

Orth. 1 + 40 = 41

Other ins. 13 + 39 = 52

1954.6 9 ms. E. of Sonora, Sutton Co., Texas.  
Elev. 2600 ft. IV. 12. 1954. (R.)

Roadside. Only C. 1 ~~Microchloa~~ = sev.  
juv. or dipodids.

Orth. 2 + 41 = 43.

Other ins. 7 + 52 = 59.

1954.7 2 ms. W. of Sonora, Sutton Co., Texas.  
Elev. 2200 ft. IV. 12. 1954.

Roadside. Only C. 1 Microchloa = sev. juv.

occip. Orth. 3 + 43 = 46.

Other ins. 1 + 59 = 60

1954. 8 1 m. W. of Howard Creek, on U.S. 290,  
Crockett Co., Texas. Elev. 2580 ft. (ann.)

IV. 12. 1954.

Roadside and woods on bare finely broken limestone.  
Heavily washed from recent flood that rained.  
No C. except 2 immature Podocera + 1 juv.  
redipidid.

Orth.  $3 + 46 = 49$ .

Orth. no.  $0 + 60 = 60$ .

---

1954. 9 10 ms. WSW. of Shifffield, Pecos Co., Texas  
Elev. 2600 ft. (ann.). IV. 12. 1954. (R.)

~~At~~ lower slope of E. border of Strickton escarpment.  
Green mesquite, Covillea, Croton + tall  
dead grass in the washes, all of which ran heavily in  
the last 24 hours. Mt. forecast and  
threatening.

No C. except 1 juv. Bortettia swept from  
Covillea.

Orth.  $1 + 49 = 50$ .

Orth. no.  $1 + 60 = 61$

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1954.10. 10 ms. W. of Fort Stockton, Pecos Co.,  
Texas. Elev. (an.) 2910 feet. IV. 13. 1954. (R.)  
No. 10.

$$\begin{array}{l} \text{Q. } 0 + 50 = 50 \\ \text{other ins. } 9 + 61 = 70 \end{array}$$

1954.11 9 ms. E. of Balmorhea, Reeves Co., Texas.  
Elev. (an.) 2680 feet. IV. 13. 1954. (R.)

Roadside. Wet. little corn. Sticky dirt.

Sole Q. 1 juv. Trimerotropis

$$\text{Q. } 1 + 50 = 51.$$

$$\text{other ins. } 5 + 70 = 75.$$

1954.12. 4.5 ms. S. of Toyahvale, Jeff Davis Co.,  
Texas. Elev. (an.) 3700 feet. IV. 13. 1954. (R.)

Roadside. Low corn-thistle, acacia-minosa &  
var. low plants, some in flower. Surface  
heavily washed by recent rains.

No. 10

$$\text{Q. } 0 + 50 = 50$$

$$\text{other ins. } 5 + 75 = 80.$$

1954.13 Roadside park along Limpia Creek,  
opposite mouth of Dragier Canyon (12 ms.

NE. of Fort Davis), Jeff Davis Co., Texas.

Elev. (ch.) 4500 feet. <sup>vis</sup> IV. 13. 1954. (R.)

In short curly grass and in dead oak leaves  
on ground, largely under spreading oaks.

All *O. sen* taken. None mature except 1 *Trim.*  
*pallidipennis*. Tetrigid among dead oak  
leaves close under frumpled flunders of  
metamorphic rock.

*Polocosa* juv. fairly numerous but  
localized in areas. In sw. instans.

*Critellus* 2 juv. only.

*Trim. pallidip.* 1 ad. sw. juv.

Tetrigid - as above.

Juv. Dictyoid. all seen.

Juv. of at least three other genera.

$$O. \quad 31 + 50 = 81.$$

$$\text{Other ins} \quad 2 + 80 = 82.$$

✓ 1954. 14 Limpia Canyon, Davis Mts., Ems.  
NW. of Fort Davis, Jeff Davis Co., Texas.

Calv. approx. 5500 feet. 14. 13. 1954. (R.)  
Short yellow sun-dried grass with scattered  
weds and low cat-claw under scattered  
tree cane, in part oaks.

All *O. sen* taken. None adult.

*Polocosa* juv. 14.

*Critellus* 1 juv.

$$\text{Orth.} \quad 3 + 81 = 84.$$

$$\text{Other ins} \quad 14 + 82 = 96.$$

✓ 1954.15 Mesquite Canyon, 10 ms. SE. of  
Fort Davis, Jeff Davis Co., Texas. Elev. 4500 ft.  
(Ch.) 11.15. 1954. (R.)

Roadside. Tall sun dried grass, short  
grass (green) - low artemisia.

All O. sun. Taken, all pins.

Proctos. - *Exochus*

$$O. 5 + 84 = 89.$$

$$\text{Other in. } 5 + 96 = 101$$

✓ 1954.16 Paisano Pass, Presidio Co., Texas.  
Elev. (b.m.) 5116 feet. 11.14. 1954. (R.)

Roadside. Tall dry bunch grass, with low  
annuals and scattered shrubs and narrow-  
leaved yuccas. Hillsides largely bare broken  
rock - rock silt wash. Scattered junipers on  
slopes.

Inv. of 2 species (*Pseudoscorpion* & *Parabacillus*)  
of phasmids mpt. 1 juv. *Proctosera* mpt. Then  
I killed all O. sun.

$$\text{Inv. } 8 + 89 = 97.$$

$$\text{Other in. } 8 + 101 = 109.$$

✓ 1954.17 U.S. 67 - 21 ms. SW. of Marfa (21 ms. NE. of Shafter), N. edge of Frenchman Hills, Presidio Co., Texas. Elev. (ch.) 4900 feet. IV. 14, 1954. (R.)

Roadside in a heavily grazed district. Scattered yuccas, many volinas, some Ephedra and nopal.

Grass very short - scanty, sun-cured.

All O. seen taken - all except, all juvs.  
Entellus, Perlocosa Q. Pseudosymple = 101.

Other vis. 6 + 109 = 115.

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1954.18 18 ms. SW. of Marfa (along U.S. 67), Presidio Co., Texas. Elev. (am.) 4600 ft. IV. 14, 1954. (R.)

Roadside. Ephedra, dry grass, scattered yucca + cat-claw. Areas of virtual stone pavement. Flowers mainly washed in last few days.

All O. seen taken.

Phrynostellus robustus (funeral - damaged) on stone pavement. Search yielded no others.

Juv. Perlocosa sev. Juv. Pseudosymple un. caught.

With. 4 + 101 = 105

Other vis. 1 + 115 = 116

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1954.19 Near Aragon, 8 ms. WNW of Marfa,  
Presidio Co., Texas. Elev. 4900 ft (an.)

IV. 14, 1954, (R.)

Roadside. Scattered areas of sun-dried desert  
grass among ocotillo, yucca & sotol, and areas  
of broken stone. All C. seen taken.

1 juv. Pseudoscorpion impt. Juv. Perilissus  
1 juv. Arctiid.

Certh.  $4 + 105 = 109$ .

Other ins.  $2 + 116 = 118$

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1954.20. Between Chispa and Wendell,  
(15 ms. NW. of Valentine), Jeff Davis Co.,  
Texas. Elev. 4050 ft. IV. 14, 1954. (R.)

Roadside. Covillea, black brush, acacia,  
Ephedra, etc., scattered Fall dry bunch grass,  
many low flowering annuals.

All C. seen taken. Very small juv. Bortettia  
beaten from Covillea. 1 juv. Thim. impt  
from ground.

Certh.  $4 + 109 = 113$ .

Other ins.  $2 + 118 = 120$

---

1954.21 7 mi. S. of Van Horn, Culberson Co.,  
Texas. Elev. (an.) 3850 ft. IV. 14. 1954 (R.)  
Roadside. Covillea, black brush and low  
flowering annuals. All C. seen taken.  
3 juv. Bortettia swept from Covillea.  
Orth.  $3 + 113 = 116$ .  
Other ins.  $2 + 120 = 122$ .

---

1954.22 At SW. foot of Baylor Mts. (on Tex. 54),  
12 mi. N. of Van Horn, Culberson Co., Texas.  
Elev. (brush mark) <sup>4290 feet</sup> ~~3648 feet~~. IV. 15. 1954. (R.)  
Covillea - black brush and ~~other low brush~~ <sup>in yubby soil.</sup>  
~~some dried grass in patches. Stony surface.~~  
No C. except juv. Bortettia swept from Covillea.  
Orth.  $3 + 116 = 119$ .  
Other ins.  $4 + 122 = 126$ .

---

1954.23 1 mi. SW. of Salt Lake (and covered with  
standing water), 20.5 mi. N. of Van Horn,  
Culberson Co., Texas. Elev. (brush mark) 3648  
feet. IV. 15. 1954. (R.)  
Covillea; black brush and other low brush;  
~~some dried grass in patches. Stony surface.~~  
No C. except juv. Bortettia swept from  
Covillea. Orth.  $13 + 119 = 132$ .  
Other ins.  $5 + 123 = 128$ .

1954.24 About 4 mi. N. of Figure Tree Ranch  
(39 mi. N. of Van Horn), Culberson Co.,  
Texas. Elev. approx. 3600 feet. IV. 15. 1954. (R.)  
Saline impregnated silt and consolidated  
clays. Cover sun-dried bunch grass and  
various low leafed perennials - a few  
narrow-leafed grasses. Much bare  
ground. Sol. C. - 1 juv. Crotalus, unsp.  
Ooth. 1 + 132 = 133.

Other ins. 3 + 128 = 131

✓ 1954.25 Guadalupe Pass, Culberson Co., Texas  
[Immediately S.E. of El Capitan - Signal  
Peak in the Guadalupe Range] Elev. (checked  
with L.M.) 5400 feet. IV. 15. 1954. (R.)  
Very short dry bunch grass in tufts, ground  
heavily washed between same. Yucca,  
cholla and spiny bushes.

All species of C. seen before. First 1 ad.  
Crotalus.

Proterops delicatula local, all active and  
relatively elusive. In small colonies.  
Crotalus few, apparently partial to no  
special locale.

Unth. 19 + 133 = 152.

Other ins. 0 + 131 = 131.

✓ 1954.26 1 m. W. of Hondo, Lincoln Co., New Mex.

Elev. 6100 feet (aner.). IV.16.1954. (R.)

Roadside. Very reddish silt with very tall dry bunch grass - various weeds. Air full of dust. All *C.* seen. Taken.

Juv. Trim. - Xanthippus all recognizable

$$C. 5 + 152 = 157.$$

$$Other in. 4 + 131 = 135.$$

✓ 1954.27 3 ms. SW. of Glencoe, Sacramento Mts., Lincoln Co., New Mexico. Elev. (aner.) 7200 feet. IV.16.1954. (R.)

Roadside. Tall dry bunch grass, areas of pebbly silt and stretches of pebble pavement, latter with scattered mats of very low plant cover. Bordering slopes thickly dotted with juniper and piñon, with but little other cover. All species of *C.* recognizable. Taken *Cypripis* - saw 2 - 1 Taken.

*Ceritettix* largely juv. some adults in tall grass largely.

*Psolomus delicatula* - few adults. more juv., on the pebbly and silty areas, not in grass.

$$C. 35 + 157 = 192.$$

$$Other in. 3 + 135 = 138.$$



1954.28 Between Bent and Mesalvo  
(3 mi. N. of latter), Otero Co., New Mexico.

Elev. approx. 6200 feet. IV.16.1954. (R.)

Very (sun-cured) grass, tall composites,  
sphaerocarpus, etc., with juniper on bordering  
flats. Soil O. sun flat. W. P. Pollock

$Q. - 2 + 192 = 194.$

Other no. 1 + 138 = 139.

1954.29 White Sands National Monument,  
Otero Co., New Mexico. Elev. 4100 feet.

IV.18, 1954. (R.)

In bays between dunes of gypsum sand  
and where there is a saline hard clay and  
a sparse vegetation of isolinas, sphaerocarpus,  
tufts of grass, etc. Also on dunes of

pure gypsum. On the latter all but  
one of the juvs. of Artemisia tridentata were  
taken. On the first one of the juvs.

Artemisia, one Pollocksonia delicatula on

hard pan, and the juvs. Pseudotsuga

unscript. Diligent search was made  
for more Artemisia, but without result.

With. 7 + 194 = 201

Other. 3 + 139 = 142

↓  
1954.30 5 ms. N. of Three Rivers, Lincoln Co.,  
New Mexico. Elev. 4750 ft. IV. 18. 1954 (R.)  
In Atriplex, mesquite - some dried grass on  
reddish sand.

1 juv. Cibolarius on surface. 1 juv.  
phasmid - prob. Pseudoscorpion trip.

Orth. 2 + 201 = 203.

Ortho in. 6 + 142 = 148.

↓  
1954.31 Lava beds NW. of Carrizozo, Lincoln  
Co., New Mexico. Elev. 5150 feet (an.).  
IV. 18. 1954 (R.)

Surface lava with yucca, whin - cholla,  
with Atriplex - some grass where silt has  
blown on.

Adip. juv. beaten from Atriplex. Lar.  
phasmid in ground beating.

Orth. 3 + 203 = 206.

Ortho in. 5 + 148 = 153.

↓  
1954.32 Hills <sup>10 ms. W.</sup> ~~west~~ of Carrizozo, Lincoln Co.,  
New Mexico. Elev. 5725 feet (an.) IV. 18. 1954.  
(R.)

Rolling hills with juniper, cholla, yucca  
(two species) and much dried short grass and  
tall dead composites. All O. seen taken

(1954.32 cont.)

except, 1 <sup>other</sup> ad. Porlocosa maculipennis,  
which escaped.

Ground surface stony in areas.

Three <sup>ad.</sup> P. maculipennis seen, two taken.

Juv. Porlocosa sp.?

$$\text{Length. } 7 + 206 = 213$$

$$\text{Other ins. } 4 + 153 = 157$$

---

1954.33 Road crossing <sup>to</sup> U.S. 380 on the Sierra  
Uscuma, 23 ms. ~~SW~~ WNW of Carrizozo,  
Socorro Co., New Mexico. Elev. 6380 ft. (an.)  
IV. 18. 1954. (R.)

Rolling hills with park-like cover of juniper  
and piñon. Bushes of sun-dried short  
grass in stony soil.

All C. seen taken. 4 juv. Centistes  
+ 1 juv. Porlocosa.

$$\text{Length. } 5 + 213 = 218$$

$$\text{Other ins. } 0 + 157 = 157$$

---

1954.34 6 ms. SW of Tancith or Cuayquemes,  
Sierra Co., New Mexico. Elev. (an.) 4025  
ft. IV. 19. 1954. (R.)

Covillea + magister. Little. All C.

seen taken. Juv. Centistes + juv. mantid.  
All taken.

$$\text{Length. } 4 + 218 = 222$$

$$\text{Other ins. } 9 + 157 = 166.$$

1954.35 4 ms. WSW. of Hatch, Luna Co., New Mexico. Elev. 4375 ft. IV. 19. 1954. (R.)

Bank with sandy surface and nearly clean sand in cracks. Covillea - Mesquite chief com. All L. seen taken. 1 juv.

Boottia, except from Covillea.

With. 1 + 222 = 223.

Other inv. 2 + 166 = 168.

1954.36 Near Hockitt, Luna Co., New Mexico - Elev. approx. 4400 ft. IV. 19. 1954. (R.)

Hard mass with <sup>small</sup> gray-white tuft of curly grass, sun-dried & scattered spherals and narrow-leaved grasses, also a very few low mesquite. Everything taken was kept. All L. seen taken. juv. approx. of Covillea - Psoralea.

With. 3 + 223 = 226.

Other inv. 4 + 168 = 172.

1954.37 5 ms. SW. of Florida, Luna Co., New Mexico. Elev. 4350 ft. (inv. - ch.) IV. 19. 1954. (R.)

Covillea dotted with and putter. 1 juv. L. 1 juv.

Boottia except from C.

With. 1 + 226 = 227.

Other inv. 2 + 172 = 174.



1954.38 10.5 ms. S. of blanning (Edward  
Columbus), Luna Co., New Mexico. Elev.  
4250 feet (ch.). IV. 19. 1954. (R.)  
Roadside brush (chiefly mesquites) on  
sandy soil. No Q.

Usth. 0 + 227 = 227.

Other vis. 3 + 174 = 177.

✓ 1954.39 2.5 ms. NW. of Lordsburg, Hidalgo  
Co., New Mexico. Elev. (an.) ~~4200~~ 4250 feet.  
IV. 20, 1954. (R.)

Roadside. Tall dry grass, dense bushy  
composites (not in flower) and clumps of  
low yellow <sup>flowered</sup> composites (in flower).

All Q. Fabus, or seen, were missed by  
sweeping.

Juv. Uroph. or Pseudoscorp. swept from grass.

Juv. Uroph. from flowering composites.

Usth. 5 + 227 = 232.

Other vis. 38 + 177 = 215.

1954.40 6 ms. S.E. of Franklin, Hidalgo  
Co., N. M. Elev. (an.) 3775 feet. IV. 20. 1954.  
(R.)

Roadside. Scattered Crotalus ranging.  
No Q.

Usth. 0 + 232 = 232.

Other vis. 3 + 215 = 218.

✓ 1954. 41 East side of road crossing <sup>(Us. 70)</sup>  
Peloncillo Mts., 9 ms. NW. of Herman,  
Graham Co., Arizona. Elev. 3975 feet (an.).  
IV. 20, 1954. (R.)

Lower slopes of range. Broken shale with  
Covillea and patches of tall sun-dried curly grass  
and tall, <sup>dry</sup> composites.

Pseudo-sermyla juv. braten from <sup>low composites</sup> grass.  
2 juv. (diff. instans) of Insara covillei braten  
from Covillea.

Ustilopus juv. braten from Covillea.

$$\text{Orth. } 4 + 232 = 236.$$

$$\text{Orth. in. } 9 + 218 = 227.$$

---

1954. 42 Near top of road crossing (Us. 70)  
of Peloncillo Mts., 12 ms. NW. of Herman,  
Graham Co., Arizona. Elev. (an.) 4100 feet.  
IV. 20, 1954. (R.)

Roadside of reddish pebbles and stones,  
with <sup>dry</sup> brush grass and forb-like weed. All  
Q. on stony surface.

1 juv. Trim. pallidipennis - 2 juv.  
Cibolensis. All seen.

$$\text{Orth. } 3 + 236 = 239.$$

$$\text{Orth. in. } 0 + 227 = 227$$

---

✓ 1954.43 13 ms. E. of Solomonville,  
Graham Co., Arizona. Elev. (aner.) 3300  
ft. 11.20. 1954. (R.).

Roadside. Coriaria and dry grass on  
stony silt. Much Coriaria in full bloom.  
Sole Q. taken except from Coriaria - juv.  
Insecta coriariae.

Utth. 1 + 239 = 240.

Other ins. 12 + 227 = 239.

✓ 1954.44 13 ms. S. of Safford, Graham  
Co., Arizona. Elev. 3575 ft. (aner.) 11.20. 1954.  
(R.).

Semi-dried bunch grass, some much shorter grass,  
flattering of Coriaria, many composites with  
old dry heads, a few low mesquites and an  
occasional yucca. All Q. swept etc.

Trimerotropis pallidip - Citellus, which  
were on the rather stony ground.

Utth. 7 + 240 = 247.

Other ins. 5 + 239 = 244.

Juv. Pseudomys  
Juv. Peromyscus  
Juv. Hesperomys

✓ 1954.45 Rainbow Pass, Cochise Co., Arizona.  
Elev. ~~4600 ft. (aner.)~~ but check, may be too high!  
Apr. 21. 1954. (R.). + 350 ft. (ch.)

Roadside. Grass tufts - weeds. All Q.  
seen taken. Es. Cor. carinata common  
No juvs.

Utth. 25 + 247 = 272.

Other ins. 3 + 244 = 247.

1954.46 Near Cochise, Cochise Co., Arizona.

Elev. (ch.) 4212 ft. IV. 21. 1954. (R.)

Very clay playa with tufts of mesquite  
tall mesquite pads and low curly grass.

All U. seen taken, all juv. - appar.

Eremicus - Cordillaris.

Ueth. 6 + 272 = 278.

Ueth. inc. 4 + 247 = 251.

1954.47 Bonita Canyon Road, Chiricahua

Nat. Monument, Chiricahua Mts., Cochise

Co., Arizona. Elev. 6000 ft. IV. 21. 1954. (R.)

Pine, cholla-barked juniper, manzanita,

etc. No insects - except butterflies - seen

except 1 bug! Ueth. 0 + 278 = 278.

Ueth. inc. 1 + 251 = 251.

1954.48 Bonita Canyon near mouth, <sup>IV. 21. 1954</sup>

Chiricahua National Monument, Chiricahua

Mts., Cochise Co., Arizona. Elev. 5200 ft. (an.)

Manzanita, oaks and piñon. Very dry,

oak leaves withering up! Strong hill

with short dry curly grass. Fth U.

seen the juv. taken!

Ueth. 1 + 278 = 279.

Ueth. inc. 0 + 251 = 251.



1954.49 Sulphur Springs Valley, 2 ms. W. of  
El Morado School, Cochise Co., Arizona.  
Elev. 5000 ft. (chart). IV. 21. 1954. (R.).

Roadside. Stony soil with tall sun-  
dried bunch grass and then very low  
carr. All species of U. seen were  
taken. Wind very high.

Trim. pallidipennis. 10. adults + imm. of juv.

Cynosoma carinatum 1 ad.

Exochus 1 ad. <sup>Cordillerian</sup>  
Imm. which are clearly ref. to juvenes - Hadrotettix  
Hemiptera, Poecilus, Melampus : 1 detritoid (juv.?).

Uth. 27 + 279 = 306.

Uth. imm. 2 + 251 = 253.

1954.50 Sulphur Springs Valley, WNW. of Sunflower,  
Cochise Co., Arizona. Elev. 4600 ft. (chart). IV. 21. 1954 (R.).

Roadside. Blotch with tall dry grass and stony  
border of valley floor, the latter with short dry grass.

Very little U - all seen taken. 1 very small  
juv. mantis + 2 very sm. juv. grasshopper. All

empt. Uth. 3 + 306 = 309

Uth. imm. 7 + 253 = 260.

✓ 1954.51 Sulphur Springs Valley, 5-25 ms.  
N. of Pearce, Cochise Co., Arizona. Elev.  
(b.m.) 4245 feet. IV. 21, 1954. (R.)  
Tall dry grass in <sup>dry</sup> drain and <sup>patches of</sup> short  
curly grass on reddish granular silt. Little  
in v. rest, ~~most~~ bulk taken on latter. All  
specimens of Orth. seen taken, and all  
specimens juv. of which the following genera  
are readily recogn. - Portorosa, Cunzea  
caninta, Paropromela, Cordillarius.

$$\text{Orth. } 18 + 309 = 327.$$

$$\text{Orth. in. } 2 + 260 = 262.$$

✓ 1954.52 10 ms. N. of Fort Huachuca (also  
10 ms. W. of Fairbank), Cochise Co., Arizona.  
Elev. 4400 ft. (chart). IV, 22, 1954. (R.)  
Tall sun-dried grass with scattered mesquite  
and yucca, on stony and granular reddish  
silt. All O. seen taken. All juv.  
Recognizable genera. Portorosa, Veronica,  
Cordillarius - Hastylotum. Juv. mantis.  
All swept.

$$\text{Orth. } 18 + 327 = 345.$$

$$\text{Orth. in. } 1 + 262 = 263.$$

✓ 1954.53 Broad draw between the  
Whitstone and Mustang Mountains,  
15 mo. NNW. of Fort Huachuca, Cochise  
Co., Arizona. Elev. (Ch.) 4700 feet. IV. 22, 1954. (R.)  
Tall dry grass, low weeds and bare red soil  
with pebbles and stones. All O. seen taken.  
Mostly swept in grass and weeds. Juv.  
Hadrotettix - adult Xanthippus on bare  
ground. Other fauna recogn. in grass, Eutettix  
Postocera - Paratrillius.

$$\text{With. } 9 + 345 = 354$$

$$\text{Other inv. } 1 + 263 = 264.$$

1954.54 Sonoita, Santa Cruz Co., Arizona.  
Elev. (Chart) 4800 ft. IV. 22, 1954. (R.)  
In tall dry yellow grass with other dead  
stems of shrubs on gravelly soil.  
Sd. O. Paratrillius <sup>- 1 juv. Hadrotettix</sup> swept from a very  
circumscribed patch.

$$\text{With. } 4 + 354 = 358.$$

$$\text{Other inv. } 1 + 264 = 265.$$

✓ 1954.55 2 mo. SW. of Patagonia,  
Santa Cruz Co., Arizona. Elev. (Chart)  
3890 feet. IV. 22, 1954. Roadside edge  
of fill - all O. seen taken except inv.

juv. Conozoa carinata. Only species C.  
carinata, 3 ads, num. juvs. in various  
stages.

$$\text{Aeth. } 10 + 358 = 368.$$

$$\text{Aeth. imm. } 0 + 265 = 265.$$

---

1954.56 1.5 ms. NE. of Nogales, Santa Cruz Co.,  
Arizona. Elev. (chart) 3900 ft. IV. 22, 1954 (R.)  
Silty hills with stone and gravel cover.  
Short curly grass and scattered bunch  
grass, mesquite and other trees. Repres.  
of all species of O. sum were taken.

Xanthippus<sup>adult</sup> on bare ground, all sum.

Aeth. genus recogn. sp. by juvs.: Poliora,  
Conozoa (carinata), Eritettix, Ageneotettix

$$\text{Aeth. } 17 + 368 = 385.$$

$$\text{Aeth. imm. } 1 + 265 = 266.$$

---

1954.57 1 m. N. of Tubac, Santa Cruz Co.,  
Arizona. Elev. approx. 3200 ft. IV. 22, 1954  
(R.).

Stony and gravelly red silt with  
bunch grass and sun-dried bunch  
grass. All species of O. sum were taken.

Trin. pallidus, num. adults + juvs.

Poliora a. pusilla a few adults.

$$\text{Aeth. } 6 + 385 = 391.$$

$$\text{Aeth. imm. } 1 + 266 = 267.$$



1954. 58 10 ms. N. of Tucson, near SW. end of  
Santa Catalina Mts., Pima Co., Arizona.

Elev. (am). 2500 ft. IV. 23, 1954. (R.).

On gravel with larger stones, short grass.  
cholla, some mesquite - palo verde (much  
of latter in full bloom). Anything in way  
of <sup>specimens</sup> taken.

Juv. Litaneutria running on ground.

Juv. Pseudomyle swept from grass.

Trin. pallidipennis, <sup>ad.</sup> on bare surface - others  
seen.

Podiceps Tex. pusilla. Seen from surface  
among short grass - a few others seen.

Heteromys re. jens. taken on ground.

leth.  $11 + 391 = 402$ .

leth. ins.  $1 + 267 = 268$ .

---

1954. 59 Bushy wooded. N. of <sup>near</sup> crossing of Canada  
del Oro, Pima Co., Arizona. IV. 23, 1954. Elev.  
2750 ft. (am.) (R.)

Pebbly silt with short mixed cane and park-like  
acacia, & cholla, nopal, palo verde, with several  
species of yellow-flowered sunflowers or  
daisy-like composites. All species of the  
same were collected.

Perilottia sanguinea juv. - in 3 instars - on  
yellow-flowered sunflower-like composite.

Conozoa carinata - a few, 2 adults  
Taken, on ground surface - local.

Trim. pallidip. 1 ad. taken - others run.

Cibicides 1 ad. on silt, all run.

Potamon Tex. pusilla. 1 Taken, vs. others run,  
on ground surface, very active.

$$\text{Cith. 11} + 402 = 413.$$

$$\text{Cith. in. 6} + 268 = 274,$$

✓ 1954.60 Big Wash crossing of Florence road,  
1/2 m. N. of Oracle Junction, Pinal Co.,  
Arizona. Elev. 2900 feet (an). IV. 23. 1954. (R.)  
Mesquite, acacia, cholla, yucca, with  
short grass and much yellow flowered  
composites. All species of C. recognita  
were taken.

Conozoa carinata largely juv. - 1 ad. Taken,  
local.

Trim. pallidip. a few ad. run - 1 Taken.

Potamon Tex. pusilla juv. only, vs.  
Taken.

$$\text{Cith. 9} + 413 = 422.$$

$$\text{Cith. in. 2} + 274 = 276.$$

1954.61 U.S. 80 9.5 ms. NW. of Grade Junction.  
Pinal Co., Arizona. Elev. 3025 ft (an.)

IV. 23. 1954. (R.)

Gravelly bank with Coriaria. All species of Ch.  
seen were taken. No Portulaca juv. !

Trin. pallidipes a few 1 taken.

Eucara coriariae 2 juv. taken from Coriaria.

Ant. - like hemipt. taken.

Orth.  $3 + 422 = 425$ .

Ceth.  $1 + 276 = 277$

1954.62 Mts. E. of Uckol Valley, 13 ms. W. of  
Stanfield, Pinal Co., Arizona. Elev. (an.)  
1620 ft. IV. 23. 1954. (R.)

Gravelly silt with Coriaria, mesquite and  
palo verde. All species of Ch. seen taken exc.  
Trin. pallidipes

Juv. Bitumentia running on ground.

Eucara coriariae juv. swept from Coriaria.

Juv. Megastictus swept.

Juv. Acrida with coral tibiae ? ? Acrida ?  
swept.

Orth.  $5 + 425 = 430$ .

Ceth. juv.  $2 + 277 = 279$ .

1954.63 12 mo. W. of Uckol Wash  
(draw between Maricopa and Sand Tanks  
mts.), Maricopa Co., Ariz. Elev. 1225 ft. (am)  
IV. 23. 1954. (R.).

Covillea. Only 1 taken was 1 husa  
covilleae and 1 juv. destroyed, both taken  
from Covillea.

$$\text{Arth. } 2 + 430 = 432.$$

$$\text{Arth. in. } 0 + 279 = 279.$$

---

1954.64 Road crossing (Ariz. 85) of Gator  
Range, 30 mo. S. of Gila Bend, Maricopa Co.,  
Arizona. Elev. (am.) 1200 ft. IV. 24. 1954. (R.)  
Low hills and flats, latter of finely broken  
reddish loam, with Covillea, salsolas,  
pala verde, scotillo, etc.

1 juv. Boettia kept from Covillea.

$$\text{Arth. } 5 + 432 = 437. \text{ (approx. 3 insects)}$$

$$\text{Arth. in. } 1 + 279 = 280.$$

---

1954.65 12 mo. SSE. of Ajo, Pima Co.,  
Arizona (near Gunsight Hills). Elev. (am.)  
1840 ft. IV. 24. 1954. (R.).

Covillea (in full bloom). Scattered mesquite  
and other trees and various low shrubs on



1954.65 (cont.)

stony and stony silt.

All species of *O. seen* taken. *Protellia* juv. quite numerous on Covillea.

*Monia covilleae* rev. juv. of same taken from Covillea.

Juv. mantid (?) ditto. *Stagnomantis* sp.

$$\text{Length. } 30 + 437 = 467.$$

$$\text{Catching in. } 9 + 280 = 289.$$

1954.66 30 mo. S. of Ajo, in Organ Pipe Cactus Nat. Monument, Pima Co., Arizona. Elev.

(an.) 1475 ft. IV. 24, 1954. (R.).

Saguaro, Covillea palo verde, ocotillo, etc. on stony slopes.

All *O. seen* taken.

*Protellia* juv. swept from Covillea.

Juv. *Theraphosella*, swept from low ground com.

$$\text{Length. } 5 + 467 = 472.$$

$$\text{Catching in. } 0 + 289 = 289.$$

1954.67 5 mo. N. of Ajo, Pima Co., Arizona.

Elev. (an.) 1450 ft. IV. 24, 1954. (R.).

Covillea flat with scattered mesquite.

All *O. seen* taken.

*Protellia* num. as juv. in at least 3 inches of preceding mat, on Covillea.

1 juv. Inasa corillae taken from same,  
1 juv. Stegmantis ditto.  
1 ♀ in instar preceding maturity of a  
protuberally colored dictyoid, forms  
?, similarly taken. Extensive  
search produced no more.

$$\text{Uth. } 16 + 472 = 488.$$

$$\text{Uth. ins. } 1 + 289 = 290.$$

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✓ 1954.68 1 m. W. of Piedra, Maricopa Co., Arizona.  
Elw. criss 650 ft. IV. 25. 1954. (R.)

Silt and desert pavement with Corillea,  
little bush, joint cactus, a few cholla and a  
little very low scattered ephemeral ground  
cover. All Q. seen taken.

Parabrillia (?) swept from little bush. Both <sup>eyes</sup> <sub>with fully dev. yps</sub>  
juv. melanoplid ditto.  
juv. Agrostis swept from Corillea.  
juv. Boottis ditto.

$$\text{Uth. } 6 + 488 = 494.$$

$$\text{Uth. ins. } 3 + 290 = 293.$$

---

1954.69 3 ms. E. of Sentinel, Maricopa Co.,  
Arizona. Elev. (am.) 670 feet. IV. 25, 1954. (R.).  
Reddish sand on lava, latter bare in many  
places.

Open stand of Covillea, little bush and  
other low com. Along dry ditch much tall  
stem-erect brushy grass.

In latter <sup>juv.</sup> aripemala, all seen taken <sup>blend white</sup> in life.  
In Covillea juv. Bortettia - ligustellia.

$$\text{leth. } 12 + 494 = 506.$$

$$\text{leth. in. } 4 + 293 = 297.$$

1954.70 12 ms. W. of Winterhaven, Imperial  
Co., Cal. Elev. (ch.) approx. 250 feet. IV. 26, 1954. (R.).

Almost bare silty sand with widely scattered  
Covillea and a few other low whitish plants,  
an occasional scotillo. Somewhat arid-est.

All O. taken were swept from Covillea -  
nothing seen on ground surface.

Bortettia juv. - 2 instars, juv. A juv.  
Melanoploid.

$$\text{leth. } 3 + 506 = 509.$$

$$\text{leth. in. } 0 + 297 = 297.$$

↓  
1954.71 Near Gray's Well, west side of  
sandhills on U.S. 80, Imperial Co., Cal.  
Elev. 200 feet. IV. 26. 1957. (R.)

Widely spaced spreading and tall  
Covillea covered with seed pods. On sandy  
silt. All C. seen taken and all are on  
Covillea - except. Inocara covilleae juv. on only  
a few plants. Boottellia juv. more general.  
All Meloidae from one single Covillea.

$$\text{Covillea. } 11 + 509 = 520.$$

$$\text{Covillea vis. } 9 + 297 = 306.$$

---

1954.72 Sand dunes about 2 ms. SE. of  
Desert Edge, Imperial Co., Cal. Elev. (approx.)  
40 feet. IV. 26. 1954. (R.)

High dunes stabilized by mesquite  
clumps and huge Covillea. All C. taken  
taken from later. - Boottellia juv. and  
juv. Inocara covilleae.

$$\text{Covillea. } 7 + 520 = 527.$$

$$\text{Covillea vis. } 3 + 306 = 309.$$

---



✓ 1954.73 Between Calixico and Bordo  
Corner, Imperial Co., Cal. Elev. 50 feet. 11.26.1954.  
Roadside silt, dry <sup>irrigation</sup> ditch and muddy edge  
of cut alfalfa field. (R.)

Litanentria juv. running on ground.

Stagnumantes juv. crypt.

Trim. pallidipennis 1 taken of animal on  
bare ground.

Melanoplus - juv. apparently of two  
species.

Oenanthus juv. crypt.

Orth. 14 + 527 = 541.

Orth. ins. 20 + 309 = 329.

✓ 1954.74 18 mi. N. of Gila River crossing of  
Arizona 95, Yuma Co., Arizona. Elev. (am.)  
900 feet. 11.27.1954. (R.)

Broad area of desert pavement (with  
"varnish") + small washes of silt. Covillea,  
a rounded, domed-like shrub with whitish  
blue tomentose leaves, a few pale red and  
aracia along washes.

All O. seen taken.

1 juv. Poecilotettix and juv. melanoploids in  
whitish leaved bush. Postettix juv.

crypt from Covillea. Trim. pallidip. adult

on bare surface.

$$\text{Length. } 13 + 541 = 554.$$

$$\text{Other no. } 2 + 329 = 331.$$

1954. 75 Castle Home Plain, W. of Castle Home Peak, 31 ms. W. of crossing of Gila River by Ariz. H., Yuma Co., Arizona. Elev. (am.) 1330 ft. IV. 27. 1954. (R.).

bleast pavement (much with "varnish"), with cholla on ridges and palo verde in the washes. Coriaria and whitish blue plant scattered.

Typhlobryce sp. on brown rocky surface (not with "varnish" however). All <sup>other</sup> O. swept from Coriaria (only few Portetia) ~~in the whitish blue plant~~ Coriaria.

$$\text{Length. } 5 + 541 = 546.$$

$$\text{Other no. } 2 + 329 = 331.$$

1954. 76 La Posa Plain, 10 ms. W. of Kofa Mountains, Yuma Co., Arizona. Elev. (am.) 1725 ft. IV. 27. 1954. (R.).

Scattered Coriaria, bunch grass, etc.

All O. seen taken. 3 juv. Stagnomantis swept from Coriaria. Portetia juv. from ditto (3 instances). 1 juv. Durania williamsi ditto.

$$\text{Length. } 12 + 546 = 558.$$

$$\text{Other no. } 3 + 331 = 334.$$

1954.77 5 ms. S. of Quartzsite, Yuma Co., Ariz.

Elev. (un.) 1325 ft. IV. 27. 1954. (R.)

Un. desert pavement & juv. Typhlocyba.

Rocky wash with many stones, some of  
adult Cibolarius - all seen taken. Also ad. juv.

Trim. pallidip. From Conillia juv. Portetia  
and other juv. Arctidid. Sw. Titaneutria running  
on ground. Orth. 21 + 558 = 579.

Orth. us. 1 + 334 = 335.

1954.78 9 miles N. of Blythe, Riverside Co., Cal.

Elev. approx. 300 ft. IV. 28. 1954. (R.)

River bottom edge of brush. Acacia, margate,  
palo verde, dense stands of arrowweed and various  
low shrubs.

Pocillotettix 1 ad. in gray blue bush.

Sw. Eucera conillia swept from Conillia.

" Genus melanophilid swept from sw. diff.  
bushes.

Sw. Anemone swept from pale green bush.

Trim. pallidip. ad. on ground surface.

Orth. 14 + 579 = 593.

Orth. us. 11 + 335 = 346.

1954.79 17 mi. N. of Blythe, Riverside Co.,  
Cal. Elev. (an.) 500 feet. IV. 28, 1954. (R.).

Lower edge of brush along river valley -  
Covillea, mesquite, acacia, Atriplex, arrow-  
weed, etc. All D. seen were taken.

Boottettia juv. from Covillea.

Juv. from melanophid's for other brush.

$$\text{With. } 8 + 593 = 601$$

$$\text{Other no. } 7 + 346 = 353$$

---

1954.80 About 3 miles S. of Vidal, San  
Bernardino Co., Cal. ~~at~~ (just N. of  
county line on U.S. 95) Elev. 800 feet. IV. 28, 1954. (R.)

Open brush with Covillea and other low cover,  
much bare stony soil. All small dry wash  
& scattered sun-cured bunch grass - in latter  
✓ 1 ad. Paspalum (1 other lost) and the two  
Paratrillius adults (taken separately).

All other D. except from Covillea. These  
included 1 ad. - 1 juv. Eucna  
covilleae, juv. Boottettia, juv.  
Lignotettia.

$$\text{With. } 16 + 601 = 617.$$

$$\text{Other no. } 8 + 353 = 361.$$

---





1954. 83 Near Boulder Well, 11 ms. NE. of  
Hesant Center, Riverside Co., Cal.

Elev 900 ft. 11. 28. 1954. (R.).

Multi-channelled rocky wash, with  
sparse plant cover, this chiefly Covillea.  
All C. taken except from latter. Juv.

Boettgeri - 1 juv. Desoria covilleae.

Orth. 6 + 636 = 642.

Orth. no. 1 + 376 = 377.

---

1954. 84 East side of Shaver's Summit,  
Riverside Co., Cal. Elev. approx. 1600 ft.  
11. 28. 1954. (R.).

Covillea - vestita - on other shrubs on  
pebbly soil. at N. base of Lerocopia Mt.

Everything taken was taken from  
Covillea. Juv. only juv. Boettgeri  
- juv. Desoria covilleae.

Orth. 4 + 642 = 646.

Orth. no. 0 + 377 = 377.

---

1954.85 15 miles S. of Palm Desert, Riverside  
Co., Cal. Elev. (an.) 4000 feet. 11.29.1954. (R.).

Stony and silty desert washes, with Croton,  
and Yucca trees and similar desert  
scrub. No O except juv. Portulaca, <sup>3 imaged</sup> swept  
from Croton and 1 Paratanaisius from  
brush grass.

Orth. 5 + 646 = 651.

Orth. ins. 0 + 377 = 377.

1954.86 Piñon Flat, San Jacinto Mountains,  
Riverside Co., Cal. Elev. (an.) 4000 feet.

11.29.1954. (R.). (Piñon Park of Photos)

Park-like disposal of piñon and juniper, with  
much of the lower cover of thin-oh, Ceanothus,  
a few Yucca and a little Chamaecyparis. Scattered  
brush grass.

All species of O. seen were taken.

1 ad. ♂ Tenebrio swept from Ceanothus - no others seen. (juv.)  
juv. Emmettia swept from Ceanothus.

Perilissus 2 taken from leaf littered ground.

1 juv. Amphitropus swept.

Cibicides 1 ad. + 2 juv. on bare ground - a few  
others seen.

? juv. Desmarestia? swept

Orth. 21 + 651 = 672.

Orth. ins. 24 + 377 = 401.

↓ 1914.87 6.5 ms. N. of Piñon Flat, San Jacinto Mts., Riverside Co., Cal. Elev. (an.) 5000 ft. IV. 29. 1914. (R.). <sup>1 juv. Fittigius</sup>  
Roadside. No *O.* except *Timema* taken from a variety of shrubs and low trees, those including Yucca, *Baccharis*, *mangrove*, *Ceanothus*. Very local in range. Most of *Timema* immature.

$$\text{Length. } 12 + 672 = 684,$$
$$\text{Ovary no. } 13 + 401 = 414.$$

↓ 1914.88 Hemet Valley, 3.5 ms. N. of Kernworth, San Jacinto Mts., Riverside Co., Cal. Elev. 4570 ft. (an.). IV. 29. 1914.

Roadside pass in open timber (pine) with a few sage. Only *O. juv.* kept. At least 3 diff. forms kept. but?

$$\text{Length. } 5 + 684 = 689.$$

$$\text{Ovary no. } 4 + 414 = 418$$



1954.89 3 ms. NW. of Mountain Center (near  
Idyllwild), San Jacinto Mts., Riverside  
Co., Cal. Elev. (am.) 4800 ft. IV. 29, 1954. (R.).  
Chaparral area with a variety of  
plants.

Termita swept from a number of plants  
(at least five different ones). All uninst.

Other inst. <sup>also</sup> taken in sweeping - 2 juv.

Heteromyids, 1 juv. uninst. - 1 juv. melanoplid.

Orth. 13 + 689 = 702.

Orth. no. 8 + 418 = 426.

---

1954.90 6 ms. S. of Banning, Riverside Co., Cal.  
Elev. (am.) 3125 feet. IV. 29, 1954. (R.).

In chaparral - Adiantum and various other  
plants of equal height, also low ground cover  
of short grass - weeds.

Chironomophala in latter, ♂♂ very active.

Termita swept.

Juv. of at least three genera of acridids swept  
2 juv. of a deutid swept from ground cover.

Orth. 11 + 702 = 713.

Orth. no. 7 + 426 = 433.

---

1954.91 Travertine Bluffs, near Fish Springs,  
Salton River, Imperial Co., Cal. Elev. approx.  
- 200 feet. IV. 30. 1954. (R.)

Silty sand with a very sparse cover of a  
leafless bush. Sole C. ~~was~~ 1 ad. ♀  
Artemia integra on ground surface - flew  
over, then after careful approach I was able to  
pick up <sup>full of eggs</sup> with my fingers. Wind very light

$$\text{Arth. } 1 + 713 = 714.$$

$$\text{Artemia } 0 + 433 = 433.$$

---

1954.92 San Felipe Valley, 3.5 miles E. of  
Banner, San Diego Co., Cal. Elev. (ch.)  
2500 feet. IV. 30. 1954. (R.)

In open pinyon stand with chamise and  
various other shrubs. Wind, fog -  
rain. No C. at all.

$$\text{Arth. } 0 + 714 = 714.$$

$$\text{Artemia } 4 + 433 = 437.$$

---

1954.93 Near Rio Lake Springs, San Diego  
Co., Cal. Elev. (an.) 3500 feet. V. 1. 1954. (R.)

Rolling mountainous surface - ground  
composed of decomposed granite gravel and  
grit. Low chaparral - largely chamise,

1954.93 (cont.).

sage and manzanita. All D. taken swept from chamise.

1 ad. Uedalimotus + 1 juv.

1 juv. dictyoid - juv.?

Orth. 3 + 714 = 717.

Orth. ins. 4 + 437 = 441.

1954.94 2 ms. E. of Alpine, San Diego Co., Cal.

Elev. (chart) 1500 feet. 1.1.1954. (R.)

Roadside - weeds, chamise, some thin oak and various other growth.

1 ad. ♀ Chimarcophala swept from roadside weeds.

1 juv. dictyoid swept from chamise? Platylus?

1 very small juv. unmarked from chamise.

1 ♀ ad. Chimarcophala swept from weeds, but flew a very long distance.

Plan on barn for ticks!

Orth. 3 + 717 = 720.

Orth. ins. 6 + 441 = 447.

1954.95 San Vicente Valley, 3 ms. N. of Lakeside, San Diego Co., Cal. Elev. circa 4800 ft. (C. M.) 1.1.1954 (R.)

Low hillside with bare spots, much chamise, grass and a number of different low bushes.

1 ad. ♀ Chimarcophala in weeds.

Napaia - 1 ad. + a number of juvs. in  
instar preceding maturity; chiefly in  
dry ground corn, near or on dry  
strips - not fresh material.

Oedemeridae juv. in a number of  
instars - present on or near ground surface.  
1 very sm. juv. Furcalid impt.

$$\text{leth.} \quad 28 \quad + \quad 720 \quad = \quad 748.$$

$$\text{leth. in.} \quad 14 \quad + \quad 447 \quad = \quad 461.$$

---

✓ 1954.96 5 ms. NW. of San Pasqual, San Diego  
Co., Cal. Elev. circa 500 ft. V. I. 1954. (R.).

Old field with weeds. All O. impt.

Juv. Chimaphila. Juv. Oedemeridae.  
Juv. <sup>other</sup> melanophilid.

$$\text{leth.} \quad 10 \quad + \quad 748 \quad = \quad 758.$$

$$\text{leth. in.} \quad 2 \quad + \quad 461 \quad = \quad 463$$

---

1954.97 4 ms. N. of Escondido, San  
Diego Co., Cal. Elev. 1060 ft. (on chart).  
V. I. 1954. (R.)

Natural low corn with chamise  
predominating, some chin oak and  
var. other low elements.

All O. impt.



1954.97 (cont.)

1 juv. Napaia - all new.

1 ad. ♀ Chimanecephala. 1 juv. melanopis.

Orth. 3 + 758 = 761

Orth. ins. 3 + 463 = 466.

✓ 1954.98 Road crossing (Cal. 74) of Elsinore Mountains, 10 ms. W. of Elsinore, Riverside Co., Cal. Elev. (v.m.) 2650 ft. V. 2. 1954. (R.)

Find area look enough to work. Some manganita, chamise, thin oak, etc. on decomposing granite.

Timema, 1 ad. ♂, 2 ad. ♀. swept from manganita

in one very small area - further work developed no more.

Gammartellus 1 ad. ♂ swept from manganita - no more could be located.

Juv. Platygyra?, several swept from chamise.

Juv. Cedolimnites in general sipping over lower area.

Orth. 7 + 761 = 768.

Orth. ins. 9 + 466 = 475.

✓ 1954.99 2.5 ms. W. of Road Summit of Elsinore Mountains, Riverside Co., Cal. Elev. (an.) 2400 ft. V. 2. 1954. (R.)

Chamise, thin oak and other com (no manganita). Everything taken swept.

Napaia juv. in low ground com.

1 juv. Platylyra? mpt.  
juv. Cedderostes, juv. cinnamomoid  
and juv. melanoplid all mpt.

Ueth.  $9 + 768 = 777$ .

Other ins.  $9 + 475 = 484$ .

---

✓ 1954. 100 1.5 ms. SE. of Ordemont, San  
Bernardino Co., Cal. Elev. 1600 ft. (ch. - an.).

V. 3. 1954. (R.).

Undisturbed natural cone - chamise, numerous  
other shrubs.

1 ad. ♂ Ciblaris on ground. juv. Trim. whitii  
(3 instans) ditto. juv. Platylyra mpt.  
juv. melanoplid mpt. juv. Napaia? ditto.

Ueth.  $13 + 777 = 790$ .

Other ins.  $10 + 484 = 494$ .

---

✓ 1954. 101 Cajon Canyon, E 1.5 ms. NW. of  
Cajon, San Bernardino Co., Cal.  
Elev. (ch.) 3750 feet. V. 3. 1954. (R.)

Almost entirely tall chamise, with  
tall woody composite along shallow wash.  
Much bare gravelly hills.

All U. seen taken - taken from chamise.  
There only juv. cinnamomids. Raphidia abundant.

Ueth.  $3 + 790 = 793$ .

Other ins.  $27 + 494 = 521$ .

---

1954.102 8 mi. NW. of Cajon, San Bernardino  
Co., Cal. Elev. 4600 (ch.) V. 3. 1954. (R.)

Mountain slopes with thin oak, scattered  
~~juniper~~ <sup>juniper</sup> and numerous cypripites (just  
above the Joshua trees).

1 ad. Chimamophala on gravelly surface.

1 ad. ♂ Cuphria ditto. juv. unmarked nupt.

juv. melanophilid nupt.

$$\text{Urch. } 4 + 793 = 797.$$

$$\text{Urch. } 1 + 521 = 522$$

---

1954.103 Desert Springs, 12 mi. NW. of  
Cajon, San Bernardino Co., Cal. Elev. 4000 ft.  
V. 3. 1954. (R.)

Scattered junipers and Joshua trees, com-  
posites & other herb.

Xanthippus 24 on ground, all com.

Cordillaria juv. nupt from low ground  
com.

$$\text{Urch. } 3 + 797 = 800.$$

$$\text{Urch. no. } 4 + 522 = 526.$$

---

1954.104 1 mi. E. of Little Rock, Los  
Angeles Co., Cal. Elev. approx. 3500 ft.  
V. 3. 1954. (R.)

Scattered Cordillaria, low sage and other  
similar com.

Almost No O. juv. Insana crilliae  
on Crillia. 1 ♂ Xanthippus on ground.

$$\text{Arth. } 2 + 800 = 802.$$

$$\text{Other ins. } 3 + 526 = 529.$$

---

1954. 105 2 ms. N. of Mohave, Kern Co., Cal.  
Elev. (ch) 2900 ft. V. 3. 1954. (R.)

Crillia, Atriplex, etc. No O.

$$\text{Arth. } 0 + 802 = 802.$$

$$\text{Other ins. } 10 + 529 = 539.$$

---

1954. 106 Along Brita Creek, 3.7 ms. N. of  
Teachapi, Teachapi Mts., Kern Co., Cal.  
Elev. 3750 ft. (an.) V. 3. 1954. (R.)

Roadside tall oat grass on gently  
silt with many bare spots and small  
washes.

Chironomophala ad. juv. ~~undetermined~~ on  
ground.

$$\text{Arth. } 2 + 802 = 804$$

$$\text{Other ins. } 22 + 539 = 561$$

---



✓ 1954. 107 6 mi. W. Field River, Kern Co.,  
Cal. Elev. <sup>approx.</sup> 325 feet ~~(Chubbuck Basin)~~  
~~(Lake chart)~~ V. 4. 1954. (R.)

Roadside shoulder and ditch with natural  
valley plant comm.

All. seen taken - swept from weedy comm.  
Inv. *Eupnigodes* in 2 instans. *Inv. melanopis*  
in 2 instans.

$$\text{Length. } 7 + 804 = 811.$$

$$\text{Weight ins. } 33 + 561 = 594.$$

✓ 1954. 108 10 mi. NE. of Ford City, Kern Co.,  
Cal. Elev. <sup>approx.</sup> 300 feet ~~(Chubbuck Basin)~~  
~~(Lake chart)~~ V. 4. 1954. (R.)

Gentle slopes, largely bare silt, with considerable  
areas of saline impregnated ground and  
with the plant cover everywhere low and  
scattered.

A small colony of *Anconia* on or very  
near the saline areas - 2 ♂ 2 ♀ taken.

Found others lost. Single ad. *Trimer.* pulled  
in same area. *Eupnigodes* juv. swept  
from low weedy comm.

$$\text{Length. } 7 + 811 = 818.$$

$$\text{Weight ins. } 2 + 594 = 596$$

✓ 1954.109 Cuyama Valley, 5.5 ms. S. of Junction  
of US. 399 - Cal. 166, Santa Barbara Co., Cal.  
Elev. (approx.) 3000 feet. V. 4. 1954. (R.)

Many weeds and very tall Ephedra-like  
bushes. No C. exc. 1 Xanthippus taken on  
bare ground.

Certh. 1 + 818 = 819.

Other ins. 21 + 596 = 617.

---

1954.110 Cuyama Valley 5.5 ms. S. of  
Ventucopa, Ventura Co., Cal. Elev.  
3200 ft. (ch.). V. 4. 1954. (R.)

Rolling slopes with great variety of  
shrubs and open stand of juniper.  
No C.

Certh. 0 + 819.

Other ins. 6 + 617 = 623.

---

✓ 1954.111 Road summit on Pine Mtn.,  
(US. 399), Ventura Co., Cal. Elev. (b.m.)  
5100 feet. V. 4. 1954. (R.)

Steep mtn. slopes with manzanita  
and other bushes, plus a small flat  
largely of bare earth.

On the latter Chimanecephala ad.  
Juv. <sup>ditto?</sup> ~~scaphoid~~, juv. destrid

1954. 111 (cont.) <sup>Other</sup> kttijoniid (genus ??).

and 2 ~~Platyphragma~~? swept from low

ground cover in the mangrove area.

The juv. kttijoniid kttijoniid when fresh was green with a multidotted brown pattern, and the caudal margin of all abd. tergites was spiculated ditto with some. Bristles heavily dotted. antennae multicaumulate. Could it be Cyrtophyllaxis? The pronotal structure is planarian also.

Uroth.  $6 + 819 = 825$ .

Uroth. inc.  $15 + 623 = 638$ .

↓  
1954. 112 Along Scape Creek, south of Pine Mountain, Ventura Co., Cal. Elev. 3875 feet. V. 4, 1954. (R.)

very low, almost mat-like charniss, and many other low shrubs, with scattered very stiff, small leaved, thin oak.

All U. Tuhus were swept.

Juv. Cyprinogobius a few. Ev. juv. melanoplids.

Uroth.  $7 + 825 = 832$ .

Uroth. inc.  $8 + 638 = 646$ .

✓ 1954.113 Near Tajiguas, Santa Barbara Co., Cal. Elev. 30 feet. v. v. 1954. (R.)

Roadside sweeping in open tall grass among open trees. No Q.

$$\text{Length. } 0 + 832 = 832.$$

$$\text{Other ins. } 26 + 646 = 672$$

✓ 1954.114 Between Las Cruces and Gaviota Pass, Santa Ynez Mts., Santa Barbara Co., Cal. Elev. 675 feet. v. v. 1954. (R.)

Roadside. No Q.

$$\text{Length. } 0 + 832 = 832.$$

$$\text{Other ins. } 24 + 672 = 696.$$

✓ 1954.115 2 mo. SE. of Los Alamos, Santa Barbara Co., Cal. Elev. (an.) 800 feet. v. v. 1954. (R.)

Roadside. Disturbed conditions.

All Q. run swept. Juv. Oedalaconotus - 2 instars. Juv. ?? Cassidix ?? swept.

$$\text{Length. } 4 + 832 = 836.$$

$$\text{Other ins. } 4 + 696 = 700$$



1954. 116 Lower Solomon Canyon, 10 ms NW.

of Los Alamos, Santa Barbara Co., Cal.

Elev. (ch.) 825 feet. V. 5: 1954. (R.)

Roadside. Tall grass - mud. All O.  
taken except.

Juv. Uedalmonetus in 3 instars.

Juv. Chinopluma?

1 juv. Tettigoniid?? Suggests that taken  
at 1954. 111 in its sprinkled pattern.

1 juv. ~~♂~~ Dipicula auricularia.

Orth. - Hem. 10 + 836 = 846.

Orth. mis. 8 + 700 = 708

1954. 117 Cuesta Pasa, 6 ms. N. of San Luis  
Obispo, San Luis Obispo Co., Cal. Elev.

(ch.) 1520 feet. V. 6, 1954. (R.)

grassy hillside, with much tall oat grass  
and various low shrubs.

In tall oat grass juv. Chinopluma and  
juv. Electrita, latter locally numerous.

Orth. O. except. Juv. Uedalmonetus -

juv. Orthopodid. Juv. ? Platylura?

Orth. 43 + 846 = 889.

Orth. mis. 32 + 708 = 740.

1954.118 4.5 mo. W. of Bradley, Monterey  
Co., Cal. Elev. (ch.) 598 ft. V. 6. 1954. (R.)

Roadside natural com, tall dark  
arid, <sup>out</sup> grass and much of a gray-blue  
plant. 1 juv. *Cedalemon*.

Orth. 7 + 889 = 896.

Other ins. 0 + 740 = 740.

---

1954.119 4 mo. NE. of Pleyto, Monterey  
Co., Cal. Elev. (an. - ch.) 1250 ft. V. 6, 1954. (R.)

Native ground cover with many compon-  
ents, under scattered oaks.

Everything swept. 2 juv. *Electriata*,  
1 juv. ? *Platytyna*?, and sev. juv.  
*melanopliids*.

Orth. 6 + 896 = 902.

Other ins. 19 + 740 = 759.

---

1954.120 Valley of San Antonio River, 1-1.5  
miles W. of Pleyto, Monterey Co., Cal. Elev.  
(ch. - an.) 750 ft. V. 6, 1954. (R.)

Spots of bare gravelly silt interspersed  
among stands of tall oat grass, some  
chardiacs. Countryside with park-like  
disposition of oaks.

*Chimaphila* on nearly bare ground, with  
*Tram. pallidipennis*.

1954.120 (cont.)

All other Q. empty. Num. of juvs. (at least 3 instars) of ? Platylyra. Juvs. in two instars of Electrita. Juv. of Cedalonotus.  
Arth. 28 + 902 = 930.

Other ins. 22 + 759 = 781.

---

✓ 1954.121 3 ms. S. of Lockwood, Monterey Co., Cal. Elev. (an.) 1025 feet. V. 6. 1954. (R.).  
Roadside rumpus.

Arth. only juvs. Cedalonotus + 1 juv. ? Platylyra?  
Arth. 4 + 930 = 934.

Other ins. 6 + 781 = 787.

---

✓ 1954.122 6 ms. N. of Jolon, Monterey Co., Cal. Elev. (an.) 9400 feet. V. 6. 1954. (R.).  
Roadside in poppis and lupine. All empty. Juv. ? Cedalonotus?

Arth. 2 + 934 = 936.

Other ins. 8 + 787 = 795

---

1954.123 2 ms. NE. of King City, Monterey Co., Cal. Elev. (an.) 760 feet.  
V. 7. 1954. (R.).

Roadside. No Q.

Arth. 0 + 936 = 936.

Other ins. 5 + 795 = 800.

---

1954.124 2 ms. N. of Bitterwater, San Benito Co., Cal. Elev. (approx.) 1900 ft. V. 7. 1954. (R.)  
Roadside. No O.

Orth.  $0 + 936 = 936$ .

Other ins.  $4 + 800 = 804$ .

---

1954.125 Dry Lake Valley near San Benito,  
7 ms. N. of Bitterwater, San Benito Co.,  
Cal. Elev. approx. 1500 ft. V. 7. 1954. (R.)

In wild out. grass, & nothing but electrica (juv.)  
and ~~that~~ that very local.

Orth.  $9 + 936 = 945$ .

Other ins.  $14 + 804 = 818$ .

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1954.126 Bear Valley at junction with  
road to Pinnacles National Monument,  
E. foot of Gabilan Range, San Benito Co.,  
Cal. Elev. approx. 1200 ft. V. 7. 1954. (R.)

In tall out. grass, poppies and many  
other wild flowers, and some nearly bare  
spots. Nearly everything except.

*Oedemerus* imm. juv. - about 3  
instars. A short-winged *Melanoplus*.

(ad. ♂ & juv. *Chinoplusia* juv. in  
about 2 instars. Orth.  $28 + 945 = 973$ .

Other ins.  $16 + 818 = 834$



✓ 1954. 127 Pinnacles National Monument.

Gabilan Range, San Benito Co., Cal.

Elev. (am.) 1200 ft. V. 7. 1954. (R.)

In charrico - brushing. 1 juv. Morone -

All D. rem. Other mat. all empty

Catch. 1 + 973 = 974.

Other vis. 11 + 834 = 845.

1954. 128 <sup>Dist. Monument</sup> Pinnacles ~~Range~~ and  
Bear Valley, San Benito Co., Cal. Elev. (am.) 1200 ft.  
V. 7. 1954. (R.)

In Fall out grass and various shrubs. Then  
low among oaks.

Everything empty.

1 juv. Melanophus - same species as taken at 1954. 126.

1 juv. Chondestes.

Catch. 2 + 974 = 976.

Other vis. 2 + 845 = 847.

✓ 1954. 129 Along San Benito River, 1 m. NW. of  
Willow Creek, San Benito Co., Cal. Elev. (ch.)

970 ft. V. 7. 1954. (R.)

Roadside. All empty.

Juv. Electrota (last juv. inst.), juv. Melanophus (last  
juv. inst.) - 2 species?

Catch. 13 + 976 = 989.

Other vis. 0 + 847 = 847.

✓ 1954. 130 2 ms. NW. of San Juan Bautista,  
San Benito Co., Cal. Elev. (ch.) 150 feet  
V. 7. 1954. (R.)

Roadside. No C. *Urtica* mpt.

$$\text{Orth. } 0 + 989 = 989.$$

$$\text{Other ins. } 10 + 847 = 857.$$

✓ 1954. 131 Low bluff on W. side of Salinas  
Riv., 3 ms. W. of Gonzales, Monterey Co., Cal.  
Elev. (ch.) 125 feet. V. 8. 1954. (R.)

Roadside. Disturbed conditions, with many  
weeds + plant intrusives. No C.

$$\text{Orth. } 0 + 989 = 989.$$

$$\text{Other ins. } 17 + 857 = 874.$$

✓ 1954. 132 2 ms. W. of Soledad, Mission  
Ruins, Salinas Valley, Monterey Co., Cal.  
Elev. 175 feet. V. 8. 1954 (R.)

Small wash bed with heavy bordering  
shrubbery, some native, some intrusive  
weeds. No C. except 1 juv. *Urtica*

$$\text{Orth. } 1 + 989 = 990.$$

$$\text{Other ins. } 17 + 874 = 891.$$

✓ 1954.133 Long Valley 12 mi. E. of San Luis,  
Monterey Co., Cal. Elev. (an.) 1480 feet.  
V. P. 1904. (R.).

In roadside weeds and grasses. Few  
juv. Heterosticta. On bare ground Trinotopis  
pallidipennis. Sev. Cedalonides kept.

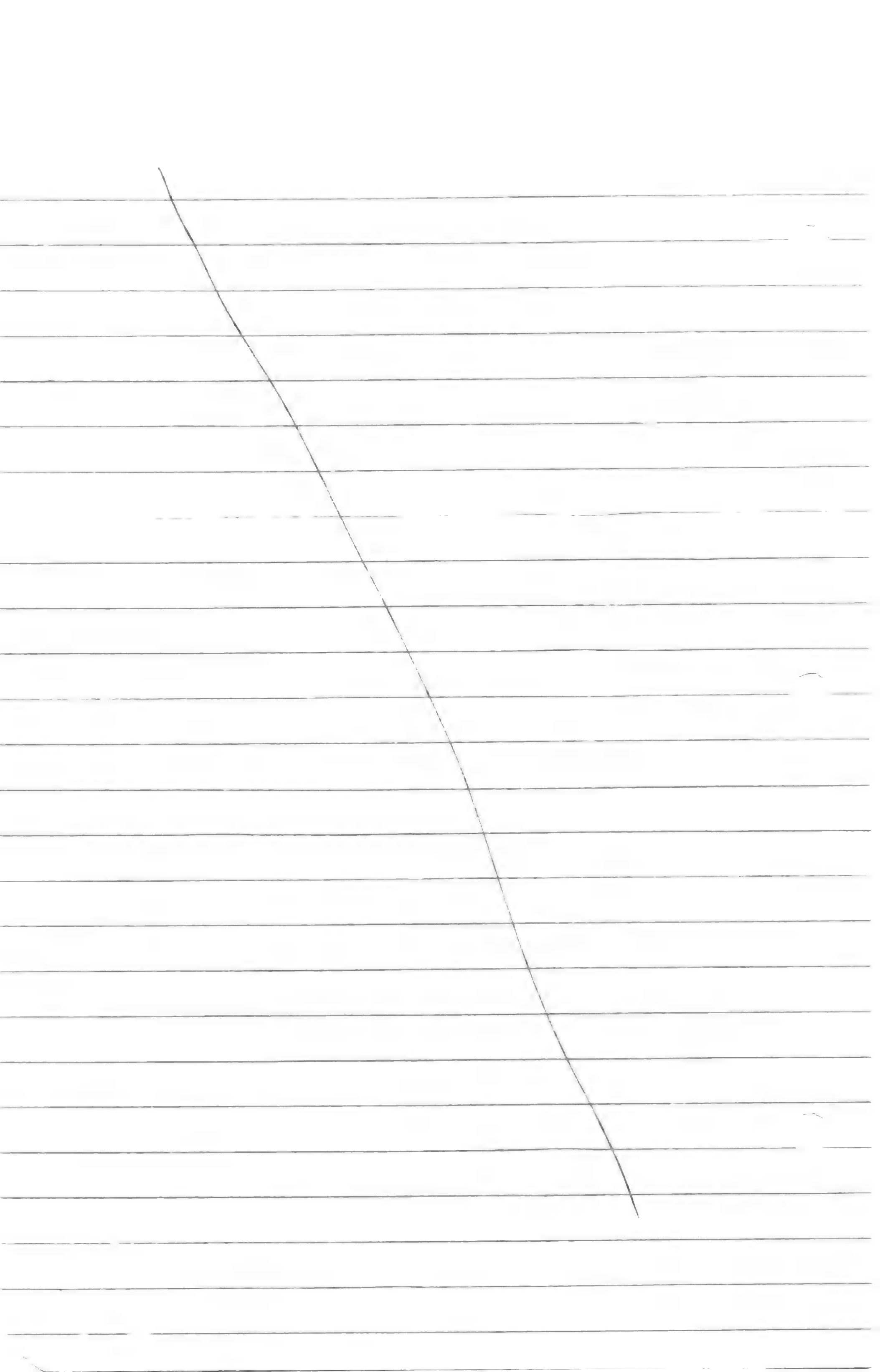
Orth. 7 + 990 = 997.

Uther in. 2 + 891 = 893

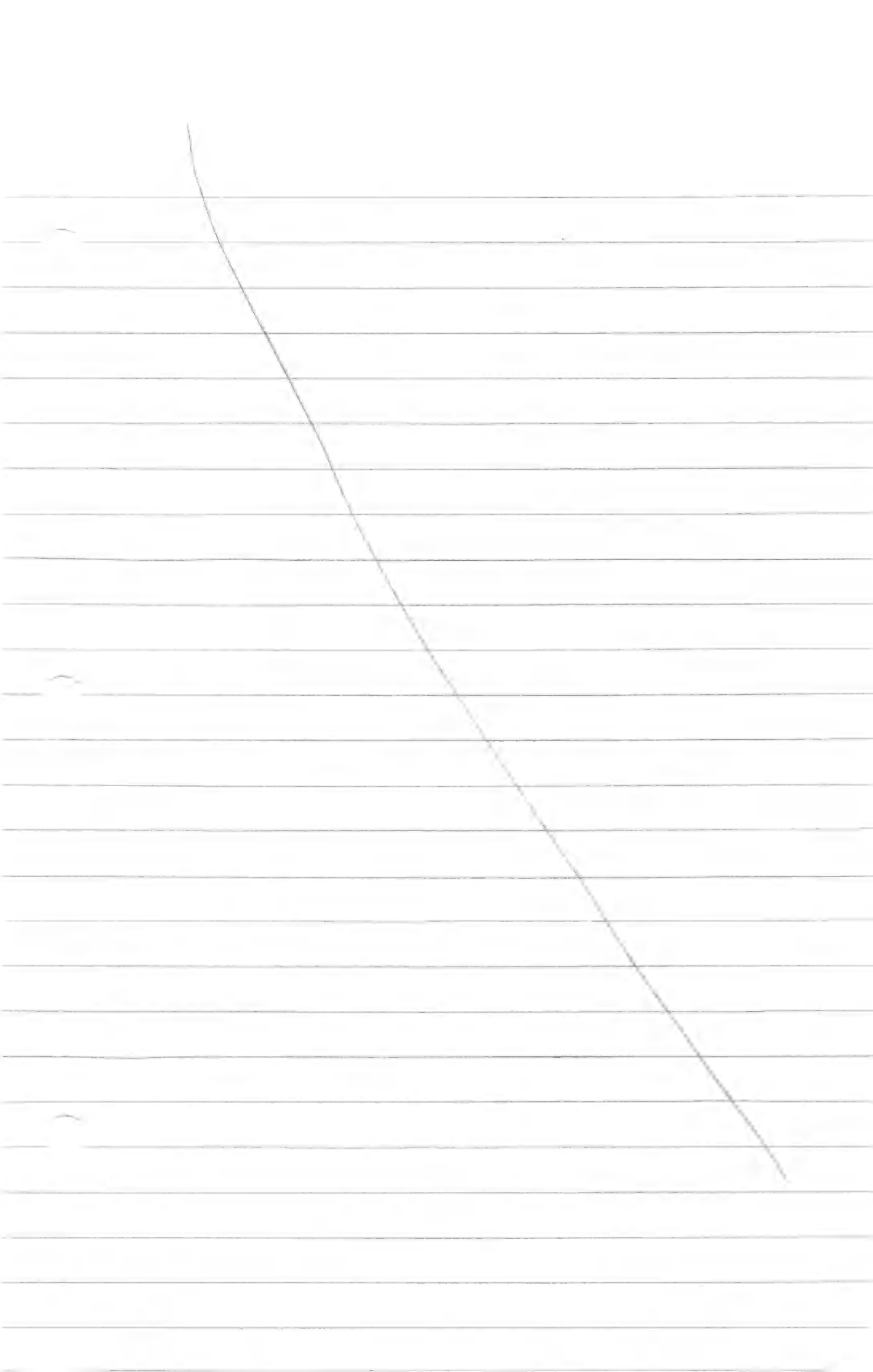
✓ 1954.134 Road crossing of Mustang Ridge,  
Sierra Range, in Cal 1st between Pearblossom  
Valley and Priest Valley, Monterey Co., Cal.  
Elev. (an.) 3150 ft. V. P. 1904. (R.)

Tall oat-grass and variety of shrubs.

Juv. Napaia and all juv. Heterosticta and  
Chionophora in oat-grass - nothing elsewhere. Heterosticta  
when disturbed from a perch on the stems  
of oat-grass drops when pursued and  
apparently seeks refuge among the  
grass roots - and is then virtually  
impossible to locate. Also the black  
line on their caudal femora, and the  
base from which exactly corresponds with  
the color and pattern of the ends of the  
grass. Orth. 8 + 997 = 1005  
Uther in. 3 + 893 = 896.







✓ 1954.135 Along Upper Waltham Creek, 2 ms.  
SE. of Priest Valley, Fresno Co., Cal.  
Elev. (ch.) 2050 feet. V. S. 1954. (R.)

~~Same as~~ Small core in canyon, mixed  
floristics under scattered oaks and a few  
pine. Chambers one of core components.  
All O. Taken mpt.

Juv. ? Platylyra ? sev.

Juv. m. w. Melanoplus 1 inst. pres. mat.

Juv. melanoplid gen. ? a number

Juv. denticioides - gen. ? found.

Uth. 8 + 1005 = 1013.

Uth. inc. 13 + 896 = 909.

✓ 1954.136 Along Waltham Creek 13 ms. SE.  
of Priest Valley, Fresno Co., Cal. Elev. (ch.)  
1300 ft. V. S. 1954. (R.)

In tall oak-forest and lower native ground  
core. Juv. Electrius <sup>(few)</sup> more partial to

former and Clinopelma, ad. (2) = juvs.  
to latter. + 1 juv. denticioides gen. ?

Uth. 11 + 1013 = 1024.

Uth. inc. 2 + 909 = 911.

1904. 137. Alvalde Canyon, 5 ms. ~~W. of~~  
W. of Coalinga, Fresno Co., Cal. Elev.  
(est.) 750 feet. V. 8. 1954. (R.).

Tall cat-grass and numerous gray-green  
shrubs, which latter suggest Sarcobatus.

Only 1 juv. Chimaphila in cat-grass.

Orth. 1 + 1024 = 1025

Orth. no. 0 + 911 = 911

1904. 138 ~~to~~ Southern slopes of Anticlinal  
Ridge, 5 ms. NE. of Coalinga, Fresno  
Co., Cal. Elev. (est.) approx. 1000 feet.

V. 9. 1954. (R.). [In oil area with <sup>about</sup> wells]

Rolling slopes with very short ground  
cover, chiefly succulent very short bunch  
grass. Also areas of bare gray silt.

All Q. seen taken loc. 1 spec. of the blue-  
winged Trimerotropis.

Oedipodoptera eripus juv. general and in 3  
instars. Adults few and very active - all  
long-winged. Trim. pallidip. a few

adults + sev. juv. Xanthippus general but

few - no juv. seen.

sat very close and

was not as shy as

the usual Xanth.

Trimerotropis blue-wing. sp.  
only on the bare silt - very wild -  
12 seen, 1 captured

Orth. 27 + 1025 = 1052.

Orth. no. 0 + 911 = 911.

✓ 1954.139 Northern Slope of Anticline  
Ridge, about 4 ms. NE. of Gilfield,  
Fresno Co., Cal. Elev. (ch.) 700 ft.

V. 9. 1954. (R.)

Rolling slopes with short out-pass and  
even shorter brush pass.

All species of Q. seen taken.

Cedaleomatus enigma imm. juv. & 1 ad. (L-12)

Melanophus sp.? 1 juv. Impt.

• Eupingodes 1 juv. Impt.

Trim. pallidip. 1 juv.

Uth 13 + 1052 = 1065.

Uth vis. 4 + 911 = 915.

✓ 1954.140 5 ms. NE. of Mendota, Fresno  
Co., Cal. Elev. <sup>circa</sup> 175 ft. ~~2 (ch.) 175 ft.~~

V. 9. 1954. V. 9. 1954 (R.)

Roadside. Salt grass - tall out-pass.

Only Q. juv. Eupingodes - 1 juv. Trim. sp.?

Eupingodes appar.

Uth 19 + 1065 = 1084

has color phases  
much like

Uth vis. 2 + 915 = 917.

Psolocosa.



1954. 141 7 ms. NW. of Firebaugh, Fresno Co.,  
Cal. Elev. <sup>circa 150 feet</sup> ~~near~~ V. 9, 1954. (R.)

Roadside. Bare ~~dry~~ ground with dry  
<sup>can</sup> grass, composed of short oat-grass and various  
taller weeds. All species of *U.* seen were  
taken, there only an adult *Trinervetris*  
*pollidipennis* - a juv. *Melanophus* -

Urb.  $2 + 1084 = 1086$ .

Urb. ins.  $1 + 917 = 918$

1954. 142 Bottom land (subject to flooding)  
along course of San Joaquin River, 8 ms. SW. of  
El Nido, Merced Co., Cal. Elev. near V. 9, 1954. (R.)  
On one side of road nearly dry roughs, all  
species of *U.* seen here. all juvs. - all taken.  
On the other side dry meadow lands with tall  
grasses and much low weeds. Ad. *Trinervetris*  
*pollidipennis* in latter land. Juv. *redipolids* (juv. ?)  
seen in same area. Juv. *Melanophus* in  
first mentioned situation.

Urb.  $36 + 1086 = 1122$ .

Urb. ins.  $6 + 918 = 924$ .

↓ 1954.143 About 4 ms. E. of Stevenson  
(32 ms. W. of Merced), Merced Co., Cal.  
Elev. about 150 feet. V. 10, 1954. (R.)

Tall weeds and grasses near large  
irrigation ditch. Soil O. very fine. melanophil.

$$\text{Cuth. } 10 + 1122 = 1132$$

$$\text{Uther ins. } 24 + 924 = 948$$

↓ 1954.144 Bottom lands of San Joaquin River,  
6 ms. NW. of Gustine, Merced Co., Cal. Elev.  
near V. 10. 1954. (R.)

Nearly bare area of dry cracked silt. Trin  
pallidip. on almost bare silt, then  
except from weeds, <sup>no found</sup> fine. melanophil, Oenanthus  
Cuth. 12 + 1132 = 1144. redipodid.

$$\text{Uther ins. } 3 + 948 = 951$$

↓ 1954.145 4.5 ms. S. of Gustine, Merced  
Co., Cal. Elev. approx. 125 feet. V. 10. 1954. (R.)

Roadside. Disturbed conditions - tall  
weeds and grass. Trin. pallid. on

bare spot. Uther except. - fine. Melanophus.

$$\text{Cuth. } 7 + 1144 = 1151$$

$$\text{Uther ins. } 3 + 951 = 954$$

1954.146 Near San Luis Ranch, 6 ms. E. of  
Pacheco Pass, Merced Co., Cal. Elev. (ch.) ~~2500~~<sup>2500</sup> feet.  
V. 10. 1954. (R.)

Low-dried tall out-pass and a few tall weeds.  
All C. seen taken - only juv. Melanoplus  
& juv. Cercyonotus, both mpt.

Orth. 5 + 1151 = 1156.

Orth. ins. 0 + 954 = 954

↓ 1954.147 West side of summit of Pacheco  
Pass, Santa Clara Co., Cal. Elev. (ch.) 1300 ft.  
V. 10. 1954. (R.)

Roadside area, in part natural cover for  
out-pass and low dense ground cover.

All C. seen taken. Juv. Chrysoperla in the  
very low cover. Juv. Melanoplus mpt. 1 juv.  
achilles ???

Orth. 9 + 1156 = 1165.

Orth. ins. 17 + 954 = 971

1954.148 2 ms. SW. of Bell Station, Pacheco  
Creek, Santa Clara Co., Cal. Elev. approx.  
300 feet. V. 10. 1954. (R.)

In tall out-pass and weeds. No C. but  
Trifurcula juv. mpt.

Orth. - Mem. 1 + 1165 = 1166

Orth. ins. 1 + 971 = 972

Valley W. of Table Mountain,  
1954. 149, 3 ms. W. of Saratoga, Santa Clara  
Co., Cal. Elev. 1250 feet (approx.). V. 11, 1954. (R.)

Steep wooded glen with heavy conifers and  
deciduous corn, all in full leaf now. Beating  
was done on tree flange, cut banks, small  
roadside tracts, etc.

Sole O. juv. ? Platytyra ? Impt. Numerous -

Orth. 13 + 1166 = 1179 <sup>2 inst. in</sup>

Other ins. 38 + 972 = 1010.

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1954. 150 5 ms. W. of Saratoga, Santa Clara Co., Cal. Elev. (approx.) 2075 feet. <sup>Santa Cruz Mts.</sup>  
V. 11, 1954. (R.)

Roadside cut banks and small flat  
under trees. No O. at all.

Orth. 0 + 1179 = 1179.

Other ins. 5 + 1010 = 1015.

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1954. 151 Saratoga Summit, Santa  
Cruz Mts., Santa Clara Co., Cal. 1/2 mi. N  
of junction of Cal. 9 & Cal. 5.  
Elev. (approx.) 2600 feet. V. 11, 1954. (R.)

Roadside edge of mixed forest.

Bectroita juv. in woods, low ground  
corn and grass on a very small flat-

local. Chiropleura juv. There also



1954.151 (cont.)

Just? *Platygyra*? except.

Unth. 8 + 1179 = 1187.

Other ins. 22 + 1015 = 1037.

✓ 1954.152 Santa Cruz Mts., 7 miles N. of junction  
of Cal. 9 and Cal. 5, Santa Clara Co., Cal.

Elev. 2275 feet (approx.) V. 11, 1954. (R.)

Rolling grassy hill slopes. Sole O.

Just. *Hesperis* - except.

Unth. 2 + 1187 = 1189.

Other ins. 32 + 1037 = 1069.

✓ 1954.153 Along Cal. 5, (see Santa Cruz sheet  
Type)

[~~Cabill Ridge~~ <sup>Sierra Morena</sup>] above Emerald Lake,

about 5 ms. (air-line) W. of Menlo

Park, San Mateo Co., Cal. Elev. approx.

1200 feet. V. 11, 1954. (R.)

Roadside work in loose cover and grasses,  
except *Timon*. All of latter taken

from fire and very local. The fire  
was scattered and not continuous

and had to be examined singly. However,

a single set of beatings sometimes

netted as many as three. These individuals

did not curl up, as did those taken  
in to Cal., but immediately became very

The other Arctos, consisted of just  
 ? *Platytyra*?, juv. *bleuillii*,  
 + 1 juv. *Medusa*.

active and scrabbled quickly. All were  
 from - same house.

$$\text{Arctos} \quad 38 + 1189 = 1227$$

$$\text{Arctos} \quad 32 + 1069 = 1101,$$

✓ 1954. 154 Cahill Ridge, E. of Half Moon  
 Bay, above Crystal Springs Lake, San  
 Mateo Co., Cal. Elev. approx. 900 feet.

V. 11, 1954. (R.) Low wind-swept

chaparral, <sup>of low components</sup> but no manzanita or

chamise. Wind cold and high.

Anything swept. No U.

$$\text{Arctos} \quad 0 + 1227 = 1227.$$

$$\text{Arctos} \quad 18 + 1101 = 1119.$$

✓ 1954. 155 5 mi. S.E. of Stinson Beach,  
 Marin Co., Cal. Elev. (an.) 500 ft. V. 13, 1954. (R.)

Low fog-drenched scrub on rolling  
 hills. No U.

$$\text{Arctos} \quad 0 + 1227 = 1227$$

$$\text{Arctos} \quad 13 + 1119 = 1132.$$

✓ 1954.156 1.5 ms. E. of Ukuma, Marin Co.,  
Cal. Elev. (ch.) 400 ft. V. 13. 1954. (R.)  
Roadside vegetation. No. 11.

Uth. 0 + 1227 = 1227.

Other vis. 17 + 1132 = 1149.

✓ 1954.157. 2 ms. NE. of Cloverdale, Sonoma Co.,  
Cal. Elev. (an.) 625 ft. V. 13. 1954. (R.)  
Roadside Full out-pass - other scattered  
shrubby. Soil C. grav. Scudderian - grav.  
uninterrupted. - abrupt.

Uth. 3 + 1227 = 1230.

Other vis. 11 + 1149 = 1160.

✓ 1954.158 Along Russian River, 7 ms. S. of  
Hopland, Mendocino Co., Cal. Elev. (an.)  
700 ft. V. 13. 1954. (R.)

Roadside from W. 101 down to river. Everything  
except from assortment of vegetation  
bordering road, except Gammastellia,  
all of which are treated from a single  
group of low trees of one species. Other  
groups of the same gilded none.  
The bicolor pattern of the dorsum  
and the canary yellow of the venter  
of the abdomen are marked in fresh

material. Almost no effort was made  
to jump when in the net. The <sup>juv. adults</sup> ~~then~~ <sup>to</sup> were  
taken from surface of road material - juv. <sup>adj. adults</sup> ~~adults~~.

$$\text{leth.} \quad 9 + 1230 = 1239.$$

$$\text{Other ins.} \quad 7 + 1160 = 1167.$$

↓ 1954.157 Three miles S. of Ridgewood Summit,  
N. of Calpella, Mendocino Co., Cal. Elev. (am)  
1850 ft. V. 14, 1954. (R.)

Roadside with scattered overhanging oaks.  
No Q. except juv. Melanophus on road edge.

$$\text{leth.} \quad 3 + 1239 = 1242.$$

$$\text{Other ins.} \quad 37 + 1167 = 1204.$$

---

1954.160 Ridgewood Summit, 4 ms. S. of  
Willits, Mendocino Co., Cal. Elev. (ch.) 1950 ft  
V. 14, 1954. (R.)

Roadside - cuts too steep to rob. No Q.

$$\text{leth.} \quad 0 + 1242 = 1242.$$

$$\text{Other ins.} \quad 18 + 1204 = 1222.$$

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↓ 1954.161 Long Valley, 4 ms. N. of Longvale,  
Mendocino Co., Cal. Elev. 1775 ft. (am.)  
V. 14, 1954. (R.)

Beating roadside vegetation and  
overhanging mangroves. No Q. at all.

$$\text{leth.} \quad 0 + 1242 = 1242$$

$$\text{Other ins.} \quad 16 + 1222 = 1238.$$



of Wiregrass Ridge.

1954. 162 High slopes to west of Redwood  
Creek, U.S. 299 (Check for notes.), Humboldt  
Co., Cal. Elev. (an.) 2350 ft. V. 15, 1954. (R.).

Roadside dumping in heavy fir and  
deciduous forest. No. 0.

Orth. 0 + 1242 = 1242.

Orth. no. 5 + 1238 = 1243.

1954. 163 High slopes on east side of Redwood  
Creek, U.S. 299 (Check for notes.), Humboldt  
Co., Cal. Elev. (an.) 2850 ft. V. 15, 1954. (R.).

Short grass slopes in opening in forest,  
with many species of bird animals.

Orth. 0. juv. Melanophila.

Orth. 2 + 1242 = 1244.

Orth. no. 12 + 1243 = 1255.

1954. 164 2 mi. N. of Burnt Ranch, Trinity  
River, Trinity Co., Cal. Elev. 1500 ft. (an.).  
V. 15, 1954. (R.).

In ground cover under open tall fir  
and oak, with lower story chiefly  
mangrovia.

Gammarotettix + juv. Uedotia swept  
from ground cover.

Orth. 5 + 1244 = 1249.

Orth. no. 10 + 1255 = 1265.

1954.165 Along Trinity River, 3 ms. E.  
of Helena, Trinity Co., Cal. Elev. (approx.)  
1860 feet. V. 15. 1954. (R.)

Soil and finely broken stone <sup>mixture</sup> ~~some~~ with  
short open ext. grass ~~some~~ along under  
mangroves and pine. Arphia seen + lost!

$$\text{Arphia. } \frac{1}{6} + 1249 = 1249 \frac{1}{6}$$

$$\text{Arphia vis. } 13 + 1265 = 1278$$

1954.166 Buckhorn  
Summit, Trinity  
Mts., Trinity-Hasta  
Cos., Cal. Elev. (approx.)

3215 feet. V. 15. 1954. (R.)

Flora of decomposed granite, in large part  
under pine, fir and oak timber, with  
much mangrovia as an understory.

Arphia on bare spots with low scant  
grass cover. Sat close, but flew relatively  
far. High Chimacrophala in leaves  
and minister ground cover - in  
shade - all seen.

Arphia C. swept in grassy spots.

Juv. Idiomus?, Juv. Neotoma, juv. anidoid species.  
at least 3 genera!

$$\text{Arphia. } 18 + 1255 = 1273$$

$$\text{Arphia vis. } 6 + 1278 = 1284$$

Juv. Blissotia on ground.  
Juv. Trum. cumleyi etc.  
Juv. Neopentetic  
swept from low cover.

✓ 1954.167 3 mi. S. of Project City, N. of Redding,  
Shasta Co., Cal. Elev. (am.) 700 feet. V. 16. 1954.  
(R.)

Close stand of semi-cured short grass on  
gently rolling hills. Some scattered pine  
and manzanita. *Ejus. Duddonia*  
*Jus. denticid* next from manzanita. *Jus. melanophilid*, *Trin. cyanipes*, *Aupha* &  
*Heisteria* sp.? (next from manzanita).  
*Trin. pallidipennis* on bare spot.

Orth. 19 + 1273 = 1292.

Orth. 21 + 1284 = 1305.

✓ 1954.168 About east side of Shasta Lake, near  
Salt Creek Recreation Area, Shasta Co., Cal.  
Elev. (am.) 1725 feet. V. 16. 1954. (R.)

Rolling low mts, with surface of finely broken  
shaly reddish rock, & bare in places,  
with manzanita spread over in others, under  
pine and oak.

*Xanthippus* 1, all seen, on bare ground surface.

*Aupha* 1 ♂ on ground with low plant cover.

*Jus. Heisteria* on bare ground. *Jus. Trin. cyanipes*  
*Jus. melanophilid* next.

Orth. 6 + 1292 = 1298.

Orth. 9 + 1305 = 1314.

↓ 1954.169 Inverton m. N. of Pollard  
Gulch, S. of Hazel Creek, Shasta Co.,  
Cal. Elev. (ch. - an.) 1700 ft V. 16. 1954 (R.)

Asphix, two taken and three seen, on  
pine needles under oaks and pine.

Juv. Asphix on pine needles.

~~Asphix~~ mat. Asphix incl. juv. melanophid.

Uroch. 5 + 1298 = 1303.

Uroch. no 4 + 1314 = 1317.

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↓ 1954.170 Castle Crag State Park, 4 m. S.  
of Glennville, Shasta Co., Cal. Elev.  
(an. - ch.) 2025 feet V. 16. 1954. (R.)

Open rich grass slopes, with meadow-  
like tussocks.

Asphix pairing, sometimes hiding at  
grass roots and generally flying  
but moderate distances.

Very juv. Melanoplus nupt.

Uroch. 6 + 1303 = 1309.

Uroch. no 31 + 1317 = 1348.

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↓  
1954.171 5 ms. S. of Town of Mt. Shasta,  
Siskiyou Co., Cal. Elev. (Ch.) 3000 ft. V. 16. 1954. (R.)  
Area with bare stony silt and with grass  
under and among manzanita chaparral.  
Arphia in small numbers, in both  
sections on ground. Juv. melanoplid on  
ground. Trin. pallidip. on road edge.  
Orth. 12 + 1309 = 1321.

Orth. inc. 4 + 1348 = 1352.

↓  
1954.172 West foot of Sugar Loaf Peak, 5 ms. N. of  
Mt. Shasta (Town), Siskiyou Co., Cal. Elev.  
(an. - ch.) 3900 feet. V. 17. 1954. (R.)  
In patches of dry short grass under cut-out  
pine and among manzanitas. All O. seen  
Fekem. Juv. melanoplids swept. 1 juv.  
Dryophila swept.

Orth. 11 + 1321 = 1332.

Orth. inc. 4 + 1352 = 1356.

↓  
1954.173 4.5 ms. N.E. of Weed, Siskiyou Co.,  
Cal. Elev. (an.) 3500 ft. V. 17. 1954. (R.)  
Bare silt and small stones with cover  
of manzanita, sage and other bushes of  
similar height. Juv. desertid swept from  
manzanita. Orth. generally swept.

Utth. 3 + 1332 = 1335.

Utth. vis. 6 + 1356 = 1362.

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↓ 1954. 174 Grass Valley, 19 m. NE. of Weed,  
Siskiyou Co., Cal. Elev. (t.m.) 5000 ft.

V. 17. 1954. (R.)

Chiefly sage with interspersed grassy  
areas. Platybothrus juv. in grass. Prolonged  
search failed to disclose more than the  
single individual taken.

Utth. 2 + 1335 = 1337.

Utth. vis. 34 + 1362 = 1396.

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↓ 1954. 175 Penoyar, Siskiyou Co., Cal.

Elev. (am.) 5100 feet. V. 17. 1954 (R.).

Grassy patches under open and partly  
cut-<sup>tall, full</sup> pine stands. No C.

Utth. 0 + 1337 = 1337.

Utth. vis. 17 + 1396 = 1413.

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✓ 1954. 176 2 ms. N. of Macdowell, Siskiyou  
Co., Cal. Elev. 4700 ft. (an.) V. 17. 1954. (R.)  
Brush pass and short grass among  
sage on volcanic silt. Juv. *Cordilleria*  
on ground. Juv. *dentoid* nupt.  
Juv. *undipodid* + juv. *melanophil* nupt.  
Cath. 8 + 1387 = 1345  
Cath. no. 12 + 1413 = 1425.

✓ 1954. 177 California-Oregon State line,  
3 ms. N. of Morris, Siskiyou Co., Cal.  
(work done in Cal.) Elev. (an.) 4200 ft.  
V. 17. 1954. (R.)  
Sage, brush pass and very low short  
grass on volcanic silt, with in spots  
bare finely broken granite at others  
with variously sized lava fragments.  
*Udalenotus*? Juv. nupt from eye.  
Also, <sup>the</sup> juv. *melanophil* nupt generally.  
Cath. 19 + 1345 = 1364.  
Cath. no. 7 + 1425 = 1432.

✓ 1954.178 3 ms. SE. of Merrill, Clatsop Co., Oregon. Elev. (an.) 3930 ft. v. 18, 1954. (R.)

Roadside - natural cover. All swept.

Adult ♀ Trypeta - small juvs. of a number of species of acridids.

Orth. 18 + 1364 = 1382.

Orth. mis. 18 + 1432 = 1450.

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✓ 1954.179 NW. edge of Modoc Lava beds 5 ms. SE. of Stronghold, Modoc Co., Cal. Elev. (an.-ch.) 4000 ft. v. 18, 1954. (R.)

Open sage, soft sage, and rabbit weed and bunch grass with <sup>dry</sup> dry out-grass ground cover on lava hillsides.

Juv. Cedrelemonotus? common, all swept from sage. Juv. Amphitruus swept.

Juv. Cubillanus swept. Juv. dictoid swept from sage.

Orth. 25 + 1382 = 1407.

Orth. mis. 24 + 1450 = 1474.

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1954. 180 4 ms. SE. of Perry, Modoc Lake Lava  
beds, Modoc Co., Cal. Elev. (an.) 4450 ft.  
V. 18. 1954. (R.)

Deep reddish brown lava till with many  
lava boulders, and with an open stand of  
bull pine and a few junipers. Large areas  
bottoms literally covered with a rank low  
plant, the leaves of which somewhat suggest  
those of cow cabbage - then mullen-like  
when young - but with a wealth of golden  
yellow large daisy-like flowers.

One <sup>newly</sup> ad. Bradypterus taken from one of  
these flowers - feeding? Many more of  
them examined but no more such cases  
seen. Juv. Archia swept from ground. Juv.  
Platylabus (2 instars) ditto. Juv. Melanoplus  
swept from ground.

Orth. 11 + 1407 = 1418.

Orth. 15 + 1474 = 1489.

1954. 181 13 ms. NW. of Canty, Modoc Co.,  
Cal. Elev. (an.) 4900 ft. V. 18. 1954. (R.)

Open low sage on reddish brown soil  
with many scattered lava fragments.

All inst. swept. Juv. ? Hedaleonotus, juv.  
Platylabus, and two other species (?).

$$\text{With. } 7 + 1418 = 1425.$$

$$\text{Altitude. } 5 + 1489 = 1494.$$

✓ 1954.182 Warm Spring Valley,  
4 ms. ENE. of Canby, Modoc  
Co., Cal. Elev. (an.) 4360 ft. V. 18, 1954. (R.)  
Sage with bunch grass.

Juv. desertid rept from sage.

Cedalonotus? juv. femoral. juv.

Neurostictus juv. With. 21 + 1425 = 1446.

$$\text{Altitude. } 8 + 1494 = 1502.$$

✓ 1954.183 Warm Spring Valley, 10 ms. W. of  
Alturas, Modoc Co., Cal. Elev. (an. - ch.)  
4450 ft. V. 18, 1954. (R.)

Sage, soft sage and a little white sage.

Anything rept. Juv. desertid. juv. Cedalonotus  
juv. Cedalonotus? juv. Neurostictus.  
With. 13 + 1446 = 1459.

$$\text{Altitude. } 5 + 1504 = 1509.$$

✓ 1954.184 8 ms S. of Alturas, Modoc Co.,  
Cal. Elev. (an.) 4450 ft. V. 19, 1954. (R.)

Areas of short out. grass, stems of tall  
bunch grass and fine sage. All

rept. rept. juv. Cedalonotus

rept from ground. With. 3 + 1509 = 1512.

$$\text{Altitude. } 27 + 1509 = 1536.$$

1954.185 6 ms. S. of Lihely, Lassen Co.,  
Cal. Elev. (an. ch.) 5750 feet. V. 19, 1954. (R.)

Road crossing of lava bench. Surface  
jumbled mass of lava fragments with  
heavy stand of low sage. True corn open  
juniper + piñon.

Cedrel. juv. mpt from sage.

Orth. 5 + 1462 = 1467.

Orth. inc. 2 + 1533 = 1535

1954.186 11.5 ms. S. of Madeline, Lassen  
Co., Cal. Elev. (an.) 5530 feet. V. 19, 1954. (R.)

Sage and rabbit weed on mt.

Almost no C. All mpt.

Orth. 1 + 1467 = 1468.

Orth. inc. 6 + 1535 = 1541.

↓ 1954.187 Slopes of canyon of the Susan River,  
above and 3 ms. W. of Humboldt, Lassen Co.,  
Cal. Elev. 4900 ft. (an.) V. 19, 1954. (R.).

Soft sage, rabbit weed, large yellow-  
flowered annual and short grass on  
lava soil, with scattered lava boulders,  
under open and partly cut-out pine (not  
tall pine). All C. mpt.

Juv. of 3 distinct melanophids. 1 juv. identified.

Ueth. 9 + 1468 = 1477.

Ueth. no. 43 + 1541 = 1584.

---

↓ 1954. 188 Fredouge Summit, Sierra Nevada, 14 mi. WSW of Susanville, Lassen Co., Cal.

Elev. (ch.) 5748 feet. V. 19. 1954. (R.)

Heavy pine (not bull pine), fir, spruce and incense cedar forest, with open glade-like meadowy spots.

Xanthippus in ground debris in sunny opening. No more could be located.

All other insect. except. Juv. ? Bradyrodes.

Ueth. 3 + 1477 = 1480.

Ueth. no. 19 + 1584 = 1603.

---

↓ 1954. 189 Mt. Lassen Road (Cal. 89) about 1.5 mi. N. of junction with Cal. 36. <sup>about collecting at</sup> 1.5 mi. E. of Mineral J. Tehama Co., Cal. Elev. (acc.) 6200 feet. V. 20. 1954. (R.)

Roadside in and on forest floor of in open spots in otherwise dense <sup>dense</sup> fir forest. Heavy snow in banks in forest on all sides. Road closed somewhat higher by heavy snow and ice. All missing.



Edge of snow banks examined for ~~Gryllotalpa~~  
~~Gryllotalpa~~ - no success.  
1954. 189 (cont.).

1 juv. aridoid all U. sum.

$$\text{Uth. } 1 + 1480 = 1481.$$

$$\text{Uth. vis. } 10 + 1603 = 1613.$$

---

1954. 190 Morgan Summit, So. of Mt. Lassen Vol.  
Nat. Park, Tehama Co., Cal. Elev. (b.m.) 5700 ft.  
V. 20, 1954. (R.).

In heavy alpine fir and pine forest.  
No C. very few insects at all. Much snow in  
patches in the forest.

$$\text{Uth. } 0 + 1481 = 1481.$$

$$\text{Uth. vis. } 4 + 1613 = 1617.$$

---

1954. 191 Childs Meadows, NW. of Clear Creek Pass,  
(Cal. 36), Tehama Co., Cal. Elev. (a.m.) 4650 ft.  
V. 20, 1954. (R.).

Mountain meadow area. Roadside section  
with short grass and will. Tetrix all  
taken near, but not in or immediately at,  
the latter. One juv. melanoglypt in same  
area. Juv. oedipodids (? Cnemid ???) abun-  
dant in one small area in short grass.

$$\text{Uth. } 40 + 1481 = 1521.$$

$$\text{Uth. vis. } 30 + 1617 = 1647.$$

↓  
1954. 192 3 2 ms. E. of Childs Meadows  
(see 1954. 191). Tehama Co., Cal. Elev. (an.)  
4550 ft. V. 20, 1954. (R.).

Mountain meadow covered with thick  
stand of buttercup-like yellow flowered plant,  
with hills running through the meadow.  
All material swept. Sole Q. the grandly  
striped ordisoid(?) nymphs.

Orth. 5 + ~~1521~~<sup>1521</sup> = 1526.

Other no. 33 + 1647 = 1680.

↓  
1954. 193 Betw. Chester and Blue Creek  
Pass (7 ms. W. of former), Plumas Co., Cal.  
Elev. (an.) 4630 feet. V. 20, 1954. (R.)  
Meadow apt along border of pine and fir  
forest

2 ad. Xanthippus taken separately at border  
of dry needles and duff bordering meadow.  
Juv. Bradyrota? swept. Other juvs. ditto.

Orth. 6 + 1526 = 1532.

Other no. 22 + 1680 = 1702.

✓ 1954.194 2.5 ms. W. of Chester, Plumas Co., Cal.

Elev. (an.) 4225 ft. V. 20. 1954. (R.).

Flat with very open spaced pine (not bull pine - has bluish bark), ground strongly silt with some small boulders, the whole much covered with needles and cones.

Xanthippus - 1 ad. all seen. Not as wary as usual for members of this group, flying a shorter distance, and allowing a closer approach.

Platylabus juvs. numerous, and rather general. No adults noticed.  
juv. antipod <sup>group</sup> 18 + 1532 = 1550,  
leth.

Other ins. 5 + 1702 = 1707..

✓ 1954.195 West end of Big Meadows Dam, 5 ms. SE. of New Praterville, Plumas Co., Cal.

Elev. circa (ch.) 4400 ft. V. 21. 1954. (R.).

Mangrovia and other shrubs, largely covering a slope of volcanic gravel. All of group.

Arphion juvs. note Q. - juvs Xanthippus  
leth. 2 + 1550 = 1552.

Other ins. 10 + 1707 = 1717.

✓ 1954.196 1 m. SW. of Greenville, Plumas  
Co., Cal. Elev. (an. chart) approx. 3800 ft.  
v. 21, 1954. (R.).

Grassy opening in black bark pine forest.  
All mat. swept. Orth. all quite juv.  
Xanthippus, Oedalexantrum, Melanophus  
- black femured juv.

Orth. 6 + 1552 = 1558.

Orth. no. 10 + 1717 = 1727.

✓ 1954.197 Near Spring garden, Spring garden  
Creek, 9 ms. ESE of Quincy, Plumas Co.,  
Cal. Elev. 4000 ft. (ch.) v. 21, 1954. (R.)

Pine (black bark) forest with sunny spots  
with short grass and wild flowers.

All swept except Aphidius, latter from  
broken shale on side of road.

Only other 1 black femured juv.

Orth. 2 + 1558 = 1560.

Orth. no. 42 + 1727 = 1769.



✓ 1954.198 1 mi. N. of Mather, Plumas Co.,  
Cal. Elev. (ch. & an.) 4525 ft. V. 21, 1954. (R.)  
Open pine (black bark) and fir forest. Some  
low brush and flowering animals.  
All rept. No Q.

$$\text{Cath. } 0 + 1560 = 1560.$$

$$\text{Other inv. } 15 + 1769 = 1784.$$

✓ 1954.199 Sierra Valley, 1.5 mi. E. of  
Beckwouth, Plumas Co., Cal. Elev.  
(an. & ch.) 4950 ft. V. 21, 1954. (R.)  
Roadside native com - patches of  
tall, soft sage with much short grass  
between and a number of low animals.  
Juv. fitting. (with vividly  
contrasted coloration, taken from the  
lowest ground area. Juv. Cedalonotus?  
Juv. Melanophus rept.

$$\text{Cath. } 12 + 1560 = 1572.$$

$$\text{Other inv. } 24 + 1784 = 1808.$$

✓ 1904. 200 Beckwouth Pass, Sierra Nevada,  
Plumas - Lassen Cos., Cal. Elev. (b.m.)

5210 feet. V. 21, 1904. (R.)

Sage brush - soft sage. Everything swept,  
very windy!

1 ♂ juv. Oedalaenetus + juv.

Androcera swept.

Orth. 6 + 1572 = 1578.

Orth. vis. 10 + 1808 = 1818.

---

1904. 201 W. side of Spanish Spring  
Valley, 6 ms. N. of Sparks, Washoe Co., Nev.  
Elev. (ch.) 4450 - 4500 feet. V. 22, 1904. (R.)

Sage brush on hill slope, with small  
clumps of scattered grass.

Trimerotropis pallid. on ground surface.

Orth. swept. - juv. Cordillaris, juv.

blue-legged Trimerotropis, there?

Orth. 5 + 1578 = 1583

Orth. vis. 0 + 1818 = 1818.

---

1904. 202 <sup>draw</sup> Road N. of Spanish  
Spring Valley, 19 ms. N. of Sparks,  
Washoe Co., Nev. Elev. (ch.) 4450 ft.  
V. 22, 1904. (R.)

1954. 202 (cont.).

Sage and rabbit weed with many areas  
of sun-cured short grass. Everything  
empt. juv. Heliantha, juv. Cordillaria  
and juv. Hesperotettix.

Utch.  $3 + 1583 = 1586$

Utter inc.  $4 + 1818 = 1822$ .

1954. 203 Eastern lower slopes of Virginia  
Range above <sup>west shore of</sup> Pyramid Lake, Washoe  
Co., Nevada. Elev. (an. - ch.) 4130 - 4000  
ft. V. 22, 1954. (R.)

Pebbly silt with sand in places, and a  
few scattered rock fragments. Cover  
open relatively low sage, ephedra and other  
shrubs, but chiefly the two mentioned.

Xanthippus the ♀ taken, on the ground,  
old sun. Not as wild as members of  
the corallipes group.

Perotrogon ♀ on ground out of low dead  
sage. ♂ on ground.

All else empty. juv. Cordillaria, juv.  
Hesperotettix and juv. ?

Utch.  $6 + 1586 = 1592$ .

Utter inc.  $0 + 1822 = 1822$ .

✓ 1954.204 Near shore of Pyramid Lake 5 ms.  
S. of Sutcliffe, Washoe Co., Nevada. Elev.  
(ch.) 3900 - 4000 ft. V. 22.1954. (R.)

Sand and gravel of old lake strand.  
Cone soft sage and rabbit weed, and  
with scattered short grass - much bare  
tilty soil.

Trimerotropis pallidip. on ground, few.  
Juv. oedipodids (3 sp.?) swept from ground.

$$\text{Cuth. } 11 + 1592 = 1603.$$

$$\text{Cuth. ins. } 0 + 1822 = 1822.$$

---

1954.205 2 ms. WNW. of Wadsworth,  
Washoe Co., Nevada. Elev. (ch.) circa  
4200 ft. V. 22.1954. (R.)

Shade tree, rabbit weed and sun-cured  
low brush grass, with quite a little  
dead Frenchweed. Ground surface  
gray tilty sand, very soft.

Juv. Cordilleris on ground.

Others swept - juv. three-legged

Trimerotropis + <sup>juv.</sup> Melanoplus.

$$\text{Cuth. } 6 + 1603 = 1609.$$

$$\text{Cuth. ins. } 1 + 1822 = 1823.$$

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✓ 1954. 206 4 ms. E & S. of Fernley,  
Lyon Co., Nevada. Elev. (an. - ch.) 4153 ft.  
V. 22. 1954. (R.) (Area of old Carson sink)  
Alkali impregnated soil with tall and  
short grass and salt licks.

Juv. Amphitornis locally comm. in short grass.  
1 juv. Aulacura mpt. Juv. Melanophus  
mpt.

Orth. 22 + 1609 = 1631.

Orth. in 6 + 1823 = 1829.

✓ 1954. 207 Carson flat, 13 ms. S. of Fallon,  
Churchill Co., Nevada. Elev. 3916 ft. (ch.)  
V. 23. 1954. (R.)  
Roadside dry ditch. All mpt.  
Mosquitoes terrible. Sole U. juv.  
Melanophus.

Orth. 2 + 1631 = 1633.

Orth. in 28 + 1829 = 1857.

1954. 208 Road <sup>crossing</sup> (US. 95) of Great  
Mountains, Lyon Co., Nevada. Elev. (ch. - an.),  
4700 feet. V. 23. 1954. (R.)

Grass & Atriplex predominating. Sole U.  
juv. Aspilota mpt from former. Almost  
no insect life.

Urb. 1 + 1633 = 1634.  
Urb. vis. 1 + 1857 = 1858.

---

1954. 209 1 m. W. of Schurz, Mineral Co.,  
Nevada. Elev. (ch. - an.) 4200 ft. V. 23. 1954.  
(R.)

Gravelly and stony lower slopes of east side  
of north end of Wasatch Range, below  
Black Mtn. peak.

Fraxia - Atriplex predominating. Cibolacris  
the only C. seen. ♀ flushed and killed in  
a dead Atriplex; ♂ taken on ground.

Urb. 2 + 1634 = 1636.  
Urb. vis. 1 + 1854 = 1855.

† 1954 210 Mason Valley, 9.5 ms. N. of  
Yerington, Lyon Co., Nevada. Elev. (ch. - an.)  
4380 feet. V. 23. 1954. (R.)

Short sun-cured salt grass on alkaline soil,  
with sparse Atriplex.

Sole C. juv. Amphitornus and  
Anura.

Urb. 17 + 1636 = 1653  
Urb. vis. 11 + 1855 = 1866.

---

✓ 1954.211 2 mi. S. of Glenbrook, above Lake  
Tahoe, Douglas Co., Nevada. Elev. (ch.)  
6600 feet. V. 24. 1954. (R.)

Areas of manzanita and other scrubby  
of similar height, with a scattering of  
sage, in pine forest.

Everything except. No C. juv. Auph.

Utter. 2 + 1653 = 1655.

Utter vis. 16 + 1866 = 1882.

✓ 1954.212 1 mi. N. of California State line,  
Lake Tahoe, Douglas Co., Nevada. Elev.  
(ch.) 6500 feet. V. 24. 1954. (R.)

Grass and sage along and in edge of  
pine forest, with some aspen. No C.

Everything except.

Utter. 0 + 1655 = 1655.

Utter vis. 40 + 1882 = 1922.

1954.213 Spooner Summit above Glenbrook  
Douglas Co., Nevada. Elev. (ch.) 7050 ft.  
V. 24. 1954. (R.)

Sage area in open surrounded by heavy  
fir and pine forest. Everything except. No C.

Utter. 0 + 1655.

Utter vis. 3 + 1922 = 1925.

1954.214 Clear Creek grade to Spooner  
Summit, above Carson City, Ormsby  
Co., Nevada. Elev. (an.) 6175 feet. V. 24, 1954.  
(R.)

Margarita and other plants in opening  
in pine & cedar forest. Everything  
rept. No l.

$$\text{Vert. } 0 + 1655 = 1655.$$

$$\text{Other no. } 5 + 1925 = 1930.$$

↓

1954.215 Clear Creek grade to Spooner  
Summit, above Carson City, Ormsby Co.,  
Nevada. Elev. (an.) 5325 feet. V. 24, 1954

Grassy mountain meadow surrounded  
by sage and bordered by <sup>heavy</sup> ~~solid~~ pine  
forest.

Camels + Arphie ? 3  
Juv. desertic and juv. redipodids in grassy  
flor of meadow. All others rept.

$$\text{Vert. } 11 + 1655 = 1666.$$

$$\text{Other no. } 11 + 1930 = 1941.$$

---



✓ 1954. 216 Chinaman Flat, Canyon of  
West Walker River, 6.5 ms. S. of Colville,  
Mono Co., Cal. Elev. (ch.: av.) 5900 ft.  
V. 25, 1954. (R.).

Small flat in canyon with sage and low  
stem-cured oat-grass - many textured  
granite boulders from slope above.  
Tree cover patch-like pinion.

Xanthippus on ground - all seen of species.  
Everything else swept. - 1 Aedoplistes juv.  
Orth. 2 + 1666 = 1668.

Uther inc. 6 + 1941 = 1947.

↓ 1954. 217 Devil's Gate, 5 ms. E. of Sonora  
Junction, Mono Co., Cal. Elev. (l. m.)  
7548 ft. V. 25, 1954. (R.).

Sage and dry mountain meadow. No  
timber in immediate vicinity. Juv.

Platybothrus in meadow. Adult Polistes  
delicatula among sage - no other seen.

Uther most. swept. Uther C. juv. apparently  
Camula and Melanophus.

Orth. 13 + 1668 = 1681.

Uther inc. 21 + 1947 = 1968.


1954.218 Conway Summit, W. of Mono  
Lake (U.S. 395), Mono Co., Cal. Elev.  
(b.m.) 8136 ft. V. 25, 1954. (R.)

Open sage covered slopes with meadow  
blooms. No C. Everything swept. Wind  
of gale proportions and work very difficult.

Uths.  $0 + 1681 = 1681$ .

Uths. ins.  $9 + 1968 = 1977$ .

1954.219 U.S. 395 1 m. N. of Headman  
Creek, Mono Co., Cal. Elev. (ch.) 7800 ft. J. 20

Pinnic surface with open tall pine  
forest. Low cover low  shrub full  
of yellow blooms, and almost no grass.


Only insects seen 1 juv. Xanthippus  
on ground surface.

Uths.  $1 + 1681 = 1682$ .

Uths. ins.  $0 + 1977 = 1977$

1954.220 So. end of Long Valley at  
Mc Gee Creek Pack Station (above  
Crowley Lake), Mono Co., Cal.

Elev. (b.m.) 6835 ft. V. 25, 1954. (R.)

In sage and yellow-flowered   
shrub (same as at 1954.219).

Everything swept.

1904. 220 (cont.)

1 very small juv. Semastoid!

With 3 + 1682 = 1685.

Utter ins. 5 + 1977 = 1982.

---

✓ 1904. 221 (H. H. H. road)

Canyon leading up to Westgard  
Pass (looking up on Bishop Topographic  
Sheet), Inyo Mts., 5 miles above Zurich.

Inyo Co., Cal. Elev. (am.) 5025 feet. V. 26. 1907.

Flow of canyon with washes and flats of  
broken stone. Many flowers in bloom. Several  
plant corn Atriplex, water lark, and a  
yellow-flowered composite.

Trimerotropis blue-legged species only on  
rock surfaces, where its <sup>very</sup> coloration was  
most protective; not at all shy, but would  
crouch on uneven surface, then fly after  
the net passed. Saw 4, secured 2.

Juv. Acroplites tratus. Tran. pallid. more  
general, 1 taken. Juv. Xanthippus on ground.

With 6 + 1685 = 1691.

Utter ins. 33 + 1982 = 2015

---

↓ 1954. 222 Westgard Pass, Inyo Mts.,  
Inyo Co., Cal. Elev. (b.m.) 7276-7325 feet  
V. 26, 1954. (R.)

Low sage and a few other plant species dotted  
with park-like juniper and piñon. A fair  
sized flat, <sup>in part</sup> with hill slopes on north and  
south sides.

Perdorella maunbyi delicatula - all seen  
taken, on ground or flying into sage. juvs.  
of ~~Amphispiza~~ <sup>Amphispiza</sup> ~~maunbyi~~ <sup>maunbyi</sup> ~~delicatula~~ <sup>delicatula</sup>. Careful search made  
for Tamias, without results.

Leith. 5 + 1691 = 1696.

Other ins. 16 + 2015 = 2031.

↓ 1954. 223 Same <sup>(old toll road)</sup> canyon as 1954. 221 but at  
6475 feet (a.m.). V. 26, 1954. (R.)

Sage, composites, various other flowering  
annuals, with scattered juniper and  
piñon. Very rough, boulder strewn surface  
and very rocky wash. Immediately  
below the gorge with one-way road.  
No D.

Leith. 0 + 1696 = 1696.

Other ins. 29 + 2031 = 2060.



1954. 224 Lower section of <sup>(old toll road)</sup> same canyon as  
1954. 221, at 4700 ft. (alt.). V. 26. 1954. (R.)  
Cover chiefly sunflower-like yellow-flowered  
composites with a little Atriplex. Large  
Fony bushes. 1 ♂ Trin. pallidipennis  
on ground.

Alt. 2 + 1696 = 1698.

~~Alt~~ Alt. vis. 5 + 2060 = 2065

✓ 1954. 225 4 ms. S. of Bishop, Inyo  
Valley, Inyo Co., Cal. Elev. (alt.) 4700 ft.  
V. 26. 1954. (R.)

Sage and composites chiefly, on decomposed  
granite gravel with many large boulders  
scattered about.

Citellus very local and few, on ground, occ.  
flying into bushes when pursued.

Juv. Uroplides swept from sage.

Juv. Trinomastopus robilis <sup>seen</sup> on ground, one  
taken all seen.

Alt. 4 + 1698 = 1702.

Alt. vis. 12 + 2065 = 2077.

✓ 1954. 226 7 ms. S. of Big Pine, Owens Valley,  
Inyo Co., Cal. Elev. (an.) 3900 ft. V. 27, 1954. (R.)

Gravelly silt, with rather heavy cover  
of rabbit weed and Atriplex, between these  
thin low grass and some Furcula-weed.

near low hills at <sup>E.</sup> base of Sierras.

Citellus very local, 1 pair taken in one  
small area. Juv. Hesperotettix almost  
entirely beaten from rabbit weed. Juv.

Melanophus by low sweeping. Juv. Antennaria  
on ground, few. Juv. Anemone 1 swept  
from low ground cover. Trim. pallid.  
on stony spots. Juv. Anemone 1 Juv.  
on ground. Juv. Aedopides beaten.

$$\text{Orth. } 33 + 1702 = 1735.$$

$$\text{Orth. vis. } 29 + 2077 = 2106.$$

✓ 1954. 227 11 ms. N. of Independence, Owens  
Valley, Inyo Co., Cal. Elev. (an. + ch.) 3900 feet  
J. 27, 1954

Vicinity of low outcrops - soil gravel and  
near-silt of decomposed granite and  
small low fragments. Cover chiefly  
rabbit weed with some Atriplex.

Citellus local, but numerous, ~~seen~~ on  
ground surface usually, but when  
pursued taking refuge in <sup>low</sup> bushes,

1954.227 (cont.)

preferably dead ones. Cordillarias  
are more local and less numerous, more  
wary and active, when pursued also  
seek refuge in dead <sup>low</sup> bushes. juv.

Acrolophus - juv. Melanophus myst.  
from Catocala ♀♀ had eggs fully developed.  
Orth. 46 + 1735 = 1781.

Other no. 0 + 2106 = 2106.

↓ 1954.228 Owens Valley, 4 ms. N. of Lone  
Pine, Inyo Co., Cal. Elev. (ch.-an.) 3700 ft.  
V. 27. 1954. (R.)

Soil silt - with definitely alkaline spots  
and crust. Corn chiefly Atriplex &  
salt bush, with some tumble-weed.

Ammodramus locally numerous, ♀♀  
flying faster than ♂♂, and with  
usually taking refuge when pursued  
in tops of Atriplex.

Orth. 13 + 1781 = 1794.

Other no. 0 + 2106 = 2106.

↓ 1954.229 Walker Pass, Sierra Nevada,  
Kern Co., Cal. Elev. (b.m.) 5200-5500 ft.  
(latter highest coll. point). V. 28. 1954. (R.)

Slopes bordering pass with piñon on  
the west side, <sup>ponderosa</sup> Pinus on the east.

from cone sage, rabbit weed, mountain  
mahogany (latter on slopes - not in the  
pass itself) and other low shrubbery.

Cinnabarid juvs. Aspt from mtn. mahogany.

Cordillaris juv. apparently hiding in a  
low shrub (sp ?), taken out. Juv. destined

empt. Juv. Acetophides and Hesperettix  
empt from rabbit weed. Everything else  
found empty. Trin. pallidip. on ground.

Arct. 12 + 1794 = 1806

Other ins. 46 + 2106 = 2152.

↓ 1954. 230 East Slope of Sierra Nevada  
leading up to Walker Pass, Inyo Co., Cal.  
Elev. (am.) 4500 ft. V. 25, 1954. (R.)

bluish strands of fine grass. Agrostis  
taken from terminal portions of leaf  
crowns. Mat. removed represents the  
exam. of several hundred crowns. None

lost. Two lacked 1 hind leg when  
captured. Grass apparently early,

as but 1 is a male, which objected  
loudly to being pinned down. Juv. Hesperettix

empt. Trin. pallidip. on p. + 1806 = 1814.

Other ins. 5 + 2152 = 2157.



✓

1954. 231 1.5 ms. N. of Little Creek, Inyo Co.,  
Cal. Elev. (un.) 3500 feet. V. 28, 1954. (R.)

Surface decomposed granitic gravel, but  
close to a bedding lava shelf. Cover  
chiefly Covillea and Valleya (Hatten?).

Juv. Insecta covilleae - Portetia unsp.  
fine Covillea. Catolaccis 1 swept from  
low cover, where it apparently had taken  
refuge. Saw 1 Campoplex fuliginosus  
flying (black wings), but could not  
mark it down, altho' I tried hard to do so.  
1 Aedopoda adult unsp.  
Altho. 13 + 1814 = 1827.

Altho. 7 + 2157 = 2164.

✓ 1954. 232 Floor of N. part of Panamint  
Valley, 3.5 ms. E. of Panamint Springs,  
Inyo Co., Cal. Elev. (ch.) 1650 feet.  
V. 29, 1954. (R.)

Very open stand of Covillea on soft sandy  
silt. Conopodusa in Covillea, mostly  
unsp., a few seen first perched in the  
upper sprays. When frightened and  
launched in flight they went a long  
distance, like a Schistocerca. Usually  
they were not very. # of eggs with devel. eggs.  
1 ad. Insecta covilleae swept from Covillea.

Juv. Agrostettix next from Covillea  
Length.  $10 + 1827 = 1837$ .  
Utter ins.  $0 + 2164 = 2164$ .

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1954. 233 Death Valley, between Stovepipe  
Wells and Salt Wells, Inyo Co., Cal.  
Elev. (ch.) 100 feet. V. 29, 1954. (R.)  
Open wash slopes with very sparse  
vegetation, chiefly Covillea and  
Atriplex hymenoclyta, No O. <sup>Agrostids in</sup> Covillea.  
Length.  $0 + 1837 = 1837$ .  
Utter ins.  $4 + 2164 = 2168$ .

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↓ 1954. 234 Eastern slopes of Death Valley,  
about 1 m. S. of Hell Gate, Inyo Co., Cal.  
Elev. (ch.) 1000 feet. V. 29, 1954. (R.)  
A maze of stony washes with open  
stand of Covillea, Atriplex hymen-  
oclyta and a few other species. Tyrtostyle  
numerous and very active - flying long  
distances - when thoroughly frightened.  
Mostly ♀♀, one pair in cortex. Single  
Trin. pallidip. seen - Taken.  
Length.  $11 + 1837 = 1848$   
Utter ins.  $1 + 2168 = 2169$ .

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✓ 1954. 225 Haylight Pass, Amargosa Range,  
Inyo Co., Cal. Elev. (b.m.) 4317 feet.  
V. 29, 1954. (R.)

Hill slopes with Covillea, Atriplex and  
numerous other low desert shrubs. Everything  
except very little. Juv. Possilotettix sanguineus  
except. Juv. Bortettix ditto. Juv. Insana  
Covilleae also.

Uoth. <sup>6</sup> 185 + 1848 = ~~1856~~ 1856.

Uoth. no. <sup>18</sup> 8 + 2169 = ~~2177~~ 2187.

✓ 1954. 236 Amargosa Desert, E. of  
Amargosa Range and 5 mi. S.W. of  
Beatty, Nye Co., Nevada. Elev. (ch. - an.)  
3200 feet. V. 29, 1954. (R.)

Gentle slopes with Covillea (the dominant  
shrub), Atriplex and other shrubs. A single  
Amorpha taken from Covillea. Insana  
and Covilleae ditto. Uoth. material  
taken, largely from Covillea. Juv.  
Bortettix also from Cov.

Uoth. 8 + 1856 = 1864.

Uoth. no. + + 2187 = 2191,

✓  
1954. 237 Oasis Valley, 1 m. N. of Hicks  
Hot Springs, Nye Co., Nevada. Elev. (ch.) approx.  
3600 feet. v. 30. 1954. (R.).

Common Atriplex - similar plants, with some  
Covillea, no grass, much bare stony silt.  
Inula cov. grass. swept from Covillea.  
Juv. Parastrephia general heating. Juv.  
Poa stolonifera ditto. Juv. Portulaca  
from Covillea.

Orth. 11 + 1864 = 1875.

Orth. no. 17 + 2191 = 2208.

---

1954. 238 ~~Sarcobata~~ Sarcobatus Flat,  
14 ms. N. of Springdale, Nye Co., Nevada.  
& Elev. (ch.) 4000 ft. v. 30. 1954. (R.)

Flat with pavement of lava ~~pebbles~~ pebbles  
pebbles and small stones on silt with  
Sarcobatus - Atriplex. Almost no O.  
1 Anemone canadensis on ground  
surface, extensive ranch located no  
more.

Orth. 1 + 1875 = 1876.

Orth. no. 0 + 2208 = 2208.

---



1954. 239 Stonewall Pass betw. Sarcobatus  
Flat and Stonewall Flat, Nye Co., Nevada.  
Elev. (ch.) 4693-4703 ft. V. 30. 1954. (R.)

Slopes of lava debris, broken down from the  
lava caps on each side of the low pass,  
also much pumice, some pieces as large as  
my hand. Corn chiefly Sarcobatus. Only  
Q. seen 1 Cibicides, taken on lava through.

Urb. 1 + 1876 = 1877.

Urb. vis. 1 + 2208 = 2209.

---

1954. 240 NW. of Stonewall Flat, 13 ms.  
N. of Stonewall Pass, Esmeralda Co.,  
Nevada. Elev. (ch. & an.) 5300 feet. V. 30. 1954. (R.)

Thin slopes with many washes, much  
desert pavement, with low cover Atriplex  
& other genera of similar type. A few  
scattered tree yuccas (those examined  
i.e. washable - yielded nothing).

Cibicides very local and not numerous  
on desert pavement. 1 juv. Trinacropora  
pallidipennis on same. Juvs. Aedys

Urb. 5 + 1877 = 1882.

Urb. vis. 9 + 2209 = 2218.

✓ 1954.241. Betw. Springdale and Hicks  
Hot Springs (head of Oasis Valley), Nye Co.,  
Nevada. Elev. (ch. - an.) 3700 ft. V. 30. 1954. (R.)

Boggy meadow, somewhat alkaline,  
with tall grass and ridges.

Juv. Conocoryphus immersus.

Trim. pallidip. on adjacent low silt

clath. 12 + 1882 = 1894

Altitud. inc. 28 + 2218 = 2246.

✓ 1954.242 Lower slopes of Bullfrog Hills,  
2 ms. S. of Rhyolite, Nye Co., Nevada.  
Elev. (ch. - an.) 3500 ft. V. 30. 1954. (R.)

Slopes with Atriplex, Covillea, etc. All  
mat. unpt. Juv. Bortettix - ad. - juv.  
Durania covilleae on Covillea.

Clath. 10 + 1894 = 1904.

Altitud. inc. 12 + 2246 = 2258.

✓ 1954.243

Amargosa blent, 4 ms. S. of Carrara,  
Nye Co., Nevada. Elev. (ch.) 3000 ft.  
V. 31, 1954. (R.)

Cover Covillea, Atriplex, etc. All bratn,  
almost entirely from Covillea.

Juv. Bortettix, higueti - Durania covilleae.

1954. 243 (cont.).

One three-winged Amorina flushed, but could not be marked down on account of light conditions.

Orth. 17 + 1904 = 1921.

Orth. inc 4 + 2258 = 2262.

1954. 244 2 ms. NW. of Rathrop's Well, Amargosa Desert, Nye Co., Nevada. Elev. (an. - ch.) approx. 2650 ft. V. 31, 1954. (R.)

Are almost <sup>pure</sup> ~~white~~ <sup>streak</sup> ~~streaks~~ of sparsely Covillea on desert pavement on silt. 2 Anoploides seen, 1 Futura from Covillea (on top terminal frays), the other flushed, flew a long distance and could not be located. Juv. Idiotatus ~~Idiotatus~~ Adelophus swept from Covillea. Juv. Bootettix <sup>(3 distinct)</sup> Ants. Adult - Juv. <sup>(1 distinct)</sup> mean Covillea on same.

Orth. 27 + 1921 = 1948.

Orth. inc. 7 + 2262 = 2269.

1954. 245 Point of Rocks, 20 ms. E & E. of Rathrop's Well, Nye Co., Nevada.

Elev. (2 m.) 3034 feet. V. 31, 1954. (R.)

Area relatively low Covillea. Everything swept. Juv. Bootettix (1 in brown phase) and Juv. Lignotettix from Covillea.

Vert. 4 + 1945 = 1949.

Other ins. 2 + 2269 = 2271.

↓ 1954.246 9 ms. E. by S. of Indian Springs,  
Clark Co., Nevada. Elev. (ch.) approx. 3050 ft.  
V. 31, 1954. (R.)

Area of multiple washes and with desert  
pavement on the lands between. Low  
Yucca, tree yucca, Covillea, etc.

Everything taken except from Covillea  
No evidence of Aglastomae in tree  
yuccas examined. Boettia juv.  
in 3 vials taken. 1 Peristettia  
paucispina in vial preceding  
maturity.

Vert. 12 + 1949 = 1961.

Other ins. 2 + 2271 = 2273.

↓ 1954.247 16 ms. NW. of Las Vegas,  
Clark Co., Nevada. Elev. (ch. : an.) approx.  
2740 ft. V. 31, 1954. (R.)

Gentle slope from Charleston  
Range with many shallow washes.  
Low plant elements chiefly Covillea and  
a low Atriplex. Landscape dotted with  
tree Yucca and tree yuccas.



1954. 247 (part)

Nothing noted in latter. Porcillotettix  
marginatus adult flushed from low  
Atriplex: juv. ~~det.~~ Astiloplas and  
Bortettix juv. <sup>13 instars</sup> - 1 adult swept from  
Covillea.

Alt. 9 + 1961 = 1970.

Alt. vis. 7 + 2273 = 2280.

---

✓ 1954. 248 Antelope Hopes of Charleston Range  
leading up to Kyle Canyon, 2 ms. above  
rock fork, Clark Co., Nevada. Elev. (an.)  
3100 feet. VI. 1, 1954. (R.)

Scattered Pinus quercus and Pinus quercus,  
with Covillea and similar bush.

Juv. Bortettix taken from Covillea. Trin.  
pallidipennis on ground.

Alt. 5 + 1970 = 1975.

Alt. vis. 5 + 2280 = 2285.

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✓ 1954. 249 Kyle Canyon, immediately  
below Charleston Park, Charleston  
Range, Clark Co., Nevada. Elev. (an. <sup>6. m.</sup> and an.) 7250 feet. VI. 1, 1954. (R.)

Sunny spots in tall pine forest, with  
another species of pine and some aspen.

Rocky wash with very narrow borders  
between the canyon walls. Lower down  
a soft sage, thistle and various other  
plants.

Xanthippus flushed from sage, taken on  
ground - all seen. Pyrochloa few,  
taken from unidentified bushes.

Orth. 3 + 1975 = 1978.

Orth. ins. 26 + 2285 = 2311.

✓ 1954. 250 Kyle Canyon, Charleston Range,  
Clark Co., Nevada. Elev. (an. + ch.) 6450 ft.

VI. 1. 1954. (R.)

Heavy stand of mixed shrubbery,  
including Mormon "juniper" (rose in  
white flower), soft sage, etc.

No C. except 1 Xanthippus, taken  
on bare stony soil. All seen.

Orth. 2 + 1978 = ~~1979~~ 1980.

Orth. ins. 24 + 2311 = 2335.

1954. 251 Kyle Canyon, Charleston Range,  
Clark Co., Nevada. Elev. (ch.) <sup>approx.</sup> 4500 feet.  
VI. 1, 1954. (R.)

In relatively heavy stand of Tree yucca,  
scattered among Atriplex, some  
Mormon "juniper" and other shrubs,  
with numerous agave. Examined many  
Tree yuccas but saw no sign of Aglaotinus.  
The sole Q. Taken was a juv. Acroplide  
impt.

Uth. 1 + 1980 = 1981.

Uth. no. 6 + 2335 = 2341.

---

1954. 252 Between Garnet and Blue Lake,  
Clark Co., Nevada. Elev. (<sup>circa 2250 feet.</sup> ~~check on H.~~)  
~~Thomson about 4000 ft.~~ VI. 2, 1954. (R.)  
Typical Conillon flat. Juv. Portettia  
impt from Cov. Enoplosura flushed  
from top sprays of Cov., finally landed  
on ground - taken there. Wind very  
high.

Uth. 3 + 1981 = 1984.

Uth. no. 10 + 2341 = 2351

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1954.253 Mormon Mesa, 4 ms. NE. of  
Glendale, Clark Co., Nevada. Elev. ~~(low)~~  
~~1500 ft. (check this on St. Thomas chart for~~ <sup>circa 2500 ft.</sup>  
~~accuracy).~~ VI. 2, 1954. (R.)

Strong silt with open Coriaria stand and  
other low bush. Very little - no C. Wind  
very high.

Arth. 0 + 1984 = 1984.

Other ins. 5 + 2351 = ~~23~~ 2356.

✓ 1954.254 Mormon Mesa, 12.5 ms. NE.  
of Glendale, Clark Co., Nevada. Elev.  
~~(alt) 1500 ft. (check this on St. Thomas chart~~ <sup>circa 3000 ft.</sup>  
~~for accuracy.)~~ VI. 2, 1954. (R.)

Deep red sand and silt with Coriaria  
and other bushes, with some scattered  
tree yuccas.

Trin. ~~pallida~~ cristata ? On sand only,  
active. Cordillacris ditto.

Pocillotettix camp. brater from low  
bushes. Ins. Bortettix in Coriaria.  
Nothing seen in tree yuccas.

Arth. 14 + 1984 = 1998.

Other ins. 0 + 2356 = 2356.



✓ 1954.255 2 ms. NE. of Arizona <sup>west</sup> state line (on U.S. 91)  
(4 ms. from Mesquite, <sup>Neveda</sup> ~~Neveda~~ <sup>Washington</sup> ~~Washington~~ <sup>Mohave</sup> ~~Mohave~~  
Co., ~~Utah~~ <sup>Arizona</sup>. (~~W. of Beaver Dam Mts.~~) Elev.  
(am.) 1475 ft. VI. 2. 1954. (R.)

Gentle slope with cover chiefly Covillea,  
Atriplex and sparse desert grass on sandy  
silt.

Dusona cov. ad. & juv. Boottettia swept  
from Covillea. Chortomima delicatulum?  
juv. swept from very low plant. Arctostaphylos  
adult on clump of very thin low grass.  
✓ Paropromela juv. still. Trim. pallid. on ground.  
Orth. 6 + 1998 = 2001.

Utah ins. 6 + 2356 = 2362

✓ 1954.256 1/2 ms. N. of Arizona state line (on U.S. 91)  
near W. base of Beaver Dam Mts., Washington  
Co., Utah. Elev. (am.) 2650 ft. VI. 2. 1954. (R.)  
Gentle slope with Covillea and many other  
low desert shrubs, and desert grass, on strong  
silt, with moderate stand of tree yuccas.  
Nothing seen in tree yuccas. juv. hypostellus  
beaten from Covillea. Cibicoides few, on  
strong ground surface. Pocillotettix long.  
locally present in that grass and several

specimens of two shrubs, usually dry and  
brittle ones. juv. Portulaca in Covillea.

Utah. 11 + 2001 = 2012.

Utah ins. 4 + 2362 = 2366.

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1954. 257 Road pass (Ut. 91) across Beaver  
Hamm Mts., Washington Co., Utah. Elev. (ch.)  
4750 feet. VI. 2. 1954. (R.)

Sage and mormon "juniper" under park-  
like junipers.

juv. Psychoglossa + juv. Pseudosamyla  
supt from mormon "juniper."

Utah. 7 + 2012 = 2019.

Utah ins. 4 + 2366 = 2370.

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1954. 258 1.25 mi. E. of Washington,  
Washington Co., Utah. Elev. (ch. - an.) 2800 ft.  
VI. 3. 1954. (R.)

Red silt with open cover of a few Covillea,  
true sage, soft sage, v. var. Cholla and prickly  
pear and some Atriplex.

Insara covilleae juv. supt from Covillea.

Cordillaria in silt - 1 all seen, taken.

Thysanotus juv. supt from soft sage.

Utah. 3 + 2019 = 2022

Utah ins. 17 + 2370 = 2387.

✓ 1954. 257 2 ms. SW. of Ludo, Washington Co., Utah. Elev. (ch.-an.) 3500 ft. VI. 3. 1954. (R.)  
Red sandstone ledges with various low ground, but no Covillea. Trin. pallidip. on rock surface. Juv. Herpetotettix swept out of low crevices.

$$\text{Arth. } 5 + 2022 = 2027.$$

$$\text{Arth. ins. } 8 + 2387 = 2395.$$

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✓ 1954. 260 1.5 ms. NE. of Anderson, Washington Co., Utah. Elev. (an.) 3800 ft. VI. 3. 1954. (R.)  
Hill slopes with juniper, some sage, thin oak, and also low crevices. Almost no grass. Trin. pallidip. on ground. Herpetotettix juvs. swept from crevices. Cibolarius 1 on rock surface, all seen, taken. Juv. Melanophus swept.

$$\text{Arth. } 5 + 2027 = 2032.$$

$$\text{Arth. ins. } 10 + 2395 = 2305.$$

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✓ 1954. 261 5 ms. NNE. of Pintura, Washington Co., Utah. Elev. (an.) 5000 ft. VI. 3. 1954. (R.)  
Rosa bush with surface largely covered from large fragments and boulders. <sup>almost</sup> entirely juniper and sage.



Juv. Hesperotettix crypt. Juv.

Acrotophides crypt. Trim. pallid. imm.  
on ground and rock surfaces. Juv. Agave  
crypt.

Utah. 4 + 2032 = 2036.

Utter inv. 36 + 2305 = 2341

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1954.262 3.5 ms. N. of Kanarrville,  
Iron Co., Utah. Elev. (an. ch.) 5500 ft.

VI. 3. 1954. (R.)

Almost pure stand of sage, under juniper  
with a few piñon, a little soft sage and  
prickly pear (some of latter in bloom).

Juv. Hesperotettix and Juv. Melanoplus  
crypt. No. C.

Utah. 2 + 2036 = 2038.

Utter inv. 16 + 2341 = 2357

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1954.263 3 ms. S. of Cedar City, Iron Co.,  
Utah. Elev. (ch. an.) 5900 ft. VI. 3. 1954 (R.)

Hill tops of lava boulders and fragments  
with some juniper & sage. - little else.

Trim. pallid. adults & juvs. on fr. surface.

Hesperot. juvs. & juvs. Melanoplus crypt.

Juv. Acrotophides crypt.

Utah. 7 + 2038 = 2045.

Utter inv. 1 + 2357 = 2358



✓ 1954. 259 2 mo. S.W. of Ludo, Washington Co., Utah. Elev. (ch.-an.) 3500 ft. VI. 3. 1954. (R.)  
Red sandstone ledges with various low ground, but no Covillea. Trin. pallidip. on rock surface. Juv. Herpetotettix kept out of low compresses.

Arth. 5 + 2022 = 2027.

Arth. inc. 8 + 2387 = 2395.

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✓ 1954. 260 1.5 mo. NE. of Anderson, Washington Co., Utah. Elev. (an.) 3800 ft. VI. 3. 1954. (R.)  
Hill slopes with juniper, some sage, thin oak, and also low compresses. Almost no grass. Trin. pallidip. on ground. Herpetotettix juv. kept from compresses. Cibolarius 1 on rock surface, all seen, taken. Juv. Melanophus kept.

Arth. 5 + 2027 = 2032.

Arth. inc. 10 + 2395 = 2305.

---

✓ 1954. 261 5 mo. NNE. of Pintura, Washington Co., Utah. Elev. (an.) 5000 ft. VI. 3. 1954. (R.)  
Rosa bush with surface largely covered from large fragments and boulders. <sup>almost</sup> Com "entirely juniper and sage.

Juv. Neopenthetia crypt. Juv.  
Acrotophila crypt. Trim. pallid. num.  
on ground and rock surfaces. Juv. Agrostis  
crypt. Orth. 4 + 2032 = 2036,  
Orth. no. 86 + 2305 = 2341

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1954.262 3.5 ms. N. of Kanarrville,  
Iron Co., Utah. Elev. (an. ch.) 5500 ft.

VI. 3. 1954. (R.)

Almost pure stand of sage, under juniper  
with a few piñon, a little soft sage and  
prickly pear (some of latter in bloom).

Juv. Neopenthetia and Juv. Melanoplus  
crypt. no. C.

Orth. 2 + 2036 = 2038.

Orth. no. 16 + 2341 = 2357.

---

1954.263 3 ms. S. of Cedar City, Iron Co.,  
Utah. Elev. (ch. an.) 5900 ft. VI. 3. 1954 (R.)

Hill slopes of lava boulders and fragments,  
with some juniper + sage - little else.

Trim. pallid. adults + juvs. on fr. surface.

Neopent. juv. + juv. Melanoplus crypt.

Juv. Acrotophila crypt.

Orth. 7 + 2038 = 2045.

Orth. no. 1 + 2357 = 2358.

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✓ 1954.264 1.5 ms. S. of Parowan Summit,  
7 ms. SW. of Parowan, Iron Co., Utah.  
Elev. (an.) 6050 feet. VI. 4. 1954. (R.)

Thick sage, with weeds roadside.

Xanthippus in sage area, on ground, also  
juv. Agaveotettix found. Juv. Melanoplus  
<sup>2478, ~~captured me~~</sup>  
in roadside weeds, mostly from me in  
sage areas.

Orth. 18 + 2045 = 2063,

Orth. ins. 6 + 2358 = 2364,

✓ 1954.265 Parowan Valley, 4.5 ms. N. of  
Paragonah, Iron Co., Utah. Elev. (ch. & an.),  
6850 feet. VI. 4. 1954. (R.)

Almost entirely Sarcobatus and Atriplex.  
Xanthippus local on ground, but flying  
into bushes. Juv. Plagiostina swept  
from Sarcobatus. Juv. Acroplides  
swept from Atriplex (a green & a brown  
phase).

Orth. 11 + 2063 = 2074.

Orth. ins. 9 + 2364 = 2373.

1954.266 Fremont Pass, Beaver Co., Utah.

Elev. (b.m.) 6530 ft. vi. 4, 1954. (R.)

Sage under juniper, some short grass  
and bare areas of whitish limestone.

All mat. either swept from sage or on  
ground. Juv. Agamotettix on ground; juv.  
oridipodid (juv.?) swept generally.

Orth. 5 + 2074 = 2079

Other ins. 1 + 2373 = 2374

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✓ 1954.267 Summit of Cove Creek - Clear  
Creek Road, Turkey Mts., Sevier Co., Utah.

Elev. (b.m.) 7230 feet. vi. 4, 1954. (R.)

Sage and rabbit

5.7 ms. E. of Cove Fort.

and, largely under  
juniper and oak. No ll.

Orth. 0 + 2079 = 2079.

Other ins. 17 + 2374 = 2391.

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✓ 1954.268 Canyon of Sevier River, 4 ms. S.  
of Sevier, Sevier Co., Utah Elev. (an.-ch.)  
5750 ft. VI. 4, 1954. (R.)

Wind very high. Sage and rabbit wood  
with scattered juniper and piñon.

Xanthippus <sup>14</sup>local, on stony stone ielt (grain)

Ambrosia more generally in same, mostly  
juv. and a few adult. Sh. winged

Melanoplus adult <sup>(28)</sup> in groups. Chaperistellus

juv. nupt. sev. other Melanoplus

nupt

Also 1 juv. Xanth.  
Cratypides nupt. 2 ♀♀ in  
same area.

Utah. 20 + 2079 = 2099.

Utah in. 2 + 2391 = 2393.

✓ 1954.269 Canyon of Sevier River, 7 ms. S. of  
Circleville, Garfield Co., Utah. Elev. (ch.)  
6300 ft. VI. 4, 1954. (R.)

Sage and Baccharis. Only 0.2 juv.

Melanoplus. Wind very high.

Utah. 2 + 2099 = 2101.

Utah in. 22 + 2393 = 2415.

✓ 1954. 270 Red Canyon Trust Camp,  
near Red Canyon, Garfield Co., Utah.  
Elev. (an.) 7560 ft. VI. 5. 1954. (R.)

Reddish gravel and broken stone under  
reddish pink cliff walls, with open sage,  
mormon "juniper" and rabbit weed, under  
several species of pine - one tall pine.

Cordillarius local, not common, 1 ad. - juv.  
taken. Very active.

Aphidius. 1 taken, all juv. Neopentatella  
empt. Work most difficult, wind very  
high.

Orth. 8 + 2101 = 2109.

Other ins. 4 + 2415 = 2419.

✓ 1954. 271 Paríangant Plateau, 1/2 m. N.  
of entrance to Bryce Canyon National  
Park, Garfield Co., Utah. Elev. (an.) 7825 ft.  
VI. 5, 1954. (R.)

Low manzanita, mormon "juniper",  
and bunch grass, under open pines with  
a few piñons.

Xanthippus locally numerous, on  
ground, not very active.

Aphidius less numerous in same situation,

1954. 271 (cont.)

but more action. Bradyrota in meadow  
area, in general on limestone or whitish  
silt. sometimes making refuges in low  
ground corn.

Juv. Amphitoma swept. Mind high.

Orth. 27 + 2109 = 2136-

Other in. 9 + 2419 = 2428.

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1954. 272 Pannocant Plateau, 8 miles  
E. of the <sup>W.</sup> entrance to Red Canyon,  
Garfield Co., Utah. Elev. (an.) 7850 feet.  
V. 5, 1954.

Open low sage (the old Pedicularis  
minima - loc.). Mind trip  
is that little work could be done.

Stk. 11 + juv. Melanophus. [see over]

Orth. 1 + 2136 = 2137.

Other in. 11 + 2428 = 2439.

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1954. 273. 1.25 mi. S. of Junction of Utah 136  
with U.S. 89, Kane Co., Utah. Elev. (an.)  
6925 feet. V. 5, 1954. (R.)

Edge of pine woods. Mind very high.  
Stk. 11 + juv. Melanophus.

$$\text{Arth. } 1 + 2136 = 2137$$

$$\text{Arth. ins. } 11 + 2428 = 2439$$


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1954. 272 [from preceding page]  
 Juv. Xanthippus on ground.  
Melanophus flabellifer 3 adults - none juv.  
 Juv. Cordillaria on ground.  
 Juv. Antenna ditto.

Work almost impossible, the wind making  
 the net almost unmanageable.

$$\text{Arth. } 18 + 2137 = 2155.$$

$$\text{Arth. ins. } 0 + 2439 = 2439$$


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1954. 274 Along Kanab Creek, 5 ms. N. of  
 Kanab, Kane Co., Utah. Elev. (a.) 4900 ft.  
 VI. 5, 1954. (R.)

Sage and flowering composite on  
 reddish sandy silt. 1000 ft. juv.

Melanophus & Agaveotettix - both juv.

$$\text{Arth. } 4 + 2155 = 2159.$$

$$\text{Arth. ins. } 11 + 2439 = 2450$$


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✓ 1954. 275 Near base of Echo Cliffs, 5 ms. S.E. of  
Navajo Bridge, Coconino Co., Arizona.  
Elev. <sup>approx. 5000 feet</sup> ~~(with intermediate at Laguna Lake)~~  
~~monstrous - prob. approx. 4000 ft.~~ VI. 6. 1954.  
(R.) Mind my high!

Red granully silt with scattered low  
grasses, <sup>(these numerous)</sup> composites and similar cover.  
Sole Q. juv. Nesporotettix swept from  
composites.

Orth. 3 + 2159 = 2162.

Orth. ins. 9 + 2450 = 2459.

✓ 1954. 276 Near base of Echo Cliffs, 25 ms. S.  
of Navajo Bridge, Coconino Co., Arizona.  
Elev. ab. 5100 feet. VI. 6. 1954. (R.).

Ridge with junipers, low scattered cover  
a whitish sage-like plant, several species  
of composites and bunch grass. Mind my high!

Psolocesa texana subsp.? 1 ad. in ground.

Juv. Nesporotettix, juv. Melanoplus - juv.

Aedopides juv. swept. Juv. Oedipodid, <sup>(juv.?)</sup> in  
ground.

Orth. 10 + 2162 = 2172.

Orth. ins. 1 + 2459 = 2460

1954. 277 6.5 ms. S. of Gray Mountain (U.S.  
89) Coconino Co., Arizona. ~~Elev. (check as~~  
~~cannot get elev.~~  
~~was - around the summit).~~ VI. 6. 1954. (R.)

Shad. scale and tall grass. Mud very high!

Acetophides juv. beaten from shad scale.

Adult - juv. Pollocosa texana subsp. ? on ground.

Arth. 4 + 2172 = 2176,

Arth. in. 0 + 2460 = 2460.

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1954. 278 Headman Flat, 5 ms. NW. of  
O'Leary Peak, Coconino Co., Arizona.

Elev. (ad. + ch) 6400 ft. VI. 6. 1954. (R.)

Tall bunch grass and Atriplex in scattered

junipers

Juv. Melanoplus + juv. Acetophides rupt.

Juv. Amphitornis ditto. juv. ? rupt. (note  
black markings and three-colored pronotal crest!)

Arth. 4 + 2176 = 2180.

Arth. in. 6 + 2460 = 2466.

---

✓ 1954.279 Summit highway (U.S. 89) pass due W. of  
O'Leary Peak, Coconino Co., Arizona. Elev. (b.m.)  
7282 feet. VI. 6. 1954. (R.).

Open ponderosa pine forest with much grass and  
other varied low ground cover. Wind pretty high.

Xanthippus versalis <sup>♀</sup> on ground, apparently keeping  
to the ground on acct. of the wind, as they  
hardly flew at all. Both full of well-developed <sup>eggs</sup>

Ampelis 1 ♂ on ground, flying freely and far.

Certhia varialis 1 ♂, 3 ♀ ad. in low cover on  
on the ground. Quite active, but taking refuge  
in surface plant cover. <sup>1 ad. ♂</sup> Agelaius varialis on ground.

Certh. 1 ♀ + 2180 = ~~2187~~ 2190

Certh. ins. 4 + 2466 = 2470.

✓ 1954.280 2 ms E of N.E. point of Elden  
Mountains, N.E. of Flagstaff, Coconino Co.,  
Arizona. Elev. (ch. - an.) 6900 ft. VI. 7. 1954. (R.)

Roadside stretches of ungrazed native  
cover under open tall pine forest. Some rabbit  
weed, <sup>full</sup> brush grass and short grass, as well  
as areas of short curly grass.

Cordillaria junc. apparently partial to the  
latter areas.

Agrostotettix juvs. on ground. Critetix  
adults local - both sexes.

Despnotettix 1 juv. only, swept.

Melanoplus juvs. numerous - apparently  
representing 2 or more species.

Acrolophus juvs. swept.

Orth. 50 + 2190 = 2240

Other inv. 5 + 2470 = 2475.

1954. 281 Flat at E. foot of Eldia Mts., 7 ms.  
N.E. of Flagstaff, Coconino Co., Ariz. Elev. (ch +  
an.) 6880 feet. VI. 7. 1954. (R.)

Tall bunch grass and very low grayish  
curly grass under open pine forest. Also the  
bush on which I took Pedioscirtetes at the same  
station in 1951, although it now is but 8-12  
inches high. Pedioscirtetes juvs. (see instans)  
swept from this latter. Parabacillus swept.

Critetix locally numerous. Xanthippus all  
seen taken<sup>(2)</sup>, not very active. Juv. dictoid  
swept. Pteroloma maurip. 1 ♂, 1 ♀, taken  
separately on ground, all seen. Juv. Cordillaria  
swept from ground. Juv. Amphitorus ditto.  
Juv. Despnotettix swept from low composites.



1954 281 (cont)

H-w. Ageneotettix 1 ad. ♂, and numerous  
juvs. <sup>(at least 2 instars)</sup> app. of same species. Arphia pandora.  
1 very small juv. 1 sm. juv. Hadrotettix, nupt.  
Melanoplus attenuatus mex. 2 ad. ♂♂, Mel. sp.?  
num. juvs. in var. instars - at least 3 species  
represented. Acrolophus sp. very small juvs.  
nupt. Mestobregma sp. ? 1 very small juv. nupt.  
2 juvs. Helicopetala nupt.

Orth.  $116 + 2240 = 2356$ .

Orth. ins. 23 + 2475 = 2498.

1954. 282 Clark's Valley, 2 ms. SE. of Lake  
Mary, Coconino Co., Arizona. Elev. (ch. - an.)  
6900 feet. VI. 7. 1954. (R.)

Park-like, medium-height, partly cut-out  
pine (not bull pine) on lava soil with many  
surface lava fragments. General ground  
cover is rather heavy low bunch grass with  
many areas of grayish curly grass.

Eritettix not common and local.

Juv. Heperiella nupt, local, appar. in composites.

Juv. Ageneotettix few, on ground surface.

Xanthippus very few, 1 taken.

Arphia more numerous, very active, with 1000 taken.

Amyxiparus 1 ad & 1 juv. taken.

Trim. pallid. 1 ad taken, all seen.

" blue-legged, 3 juvs. taken, local.

Acetophides juv. a few swept.

Melanoplus the winged species, a number of adult ♂♂ & juvs. in a number of instars. Common in the latter end.

Melanoplus sp. 1 juv.

Orth. 73 + 2356 = 2429.

Other ins. 5 + 2498 = 2503.

---

1954. 283 1/2 m. NW. of NW. end of Lake Mary,  
Cochise Co., Arizona. Elev. (ch. & an.)

6800 ft. VI. 7. 1954. (R.)

Adm tilt in place largely covered by  
reasonably large lava fragments. Plant com  
under open bull pine, tall bunchgrass, low  
gray curly grass and a low composite.

Sole V. seen - taken Xanthippus,

more numerous than usual. Cyphus

a few. 1 juv. Amphitornus. 1 juv. Acetophides.

Orth. 9 + 2429 = 2438.

Other ins 0 + 2503 = 2503.

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1954. 284 3.5 ms. N. of Williams, Coconino  
Co., Arizona. Elev. (an.) 6825 ft. VI. 8. 1954. (R.)

Bunch grass, soft sage and a tall mullein.  
Wind very high. Almost nothing seen.

1 ad. Centistes - 1 juv. Amphitornus.

Orth. 2 + 2438 = 2440.

Other ins. 9 + 2503 = 2512.

---

✓ 1954. 285 14 ms. N. of Red Lake, Coconino  
Plateau, Coconino Co., Arizona. Elev. (an.)  
approx. 6000 ft. VI. 8. 1954. (R.)

Atriplex & bunch grass. Everything swept.

Wind very high. Sev. Agrostetes, juv.

Aeroplides & juv. Melanoplus all taken.

Orth. 15 + 2440 = 2455.

Other ins. 3 + 2512 = 2515.

---

✓ 1954. 286 3 ms. due W. of Red Butte, Coconino  
Plateau, Coconino Co., Arizona. Elev. (an.)  
6750 ft. VI. 8. 1954. (R.)

Short gray curly grass and sparse bunch  
grass on stony soil in aisle between juniper  
and piñon.

Xanthippus in fair numbers, mainly gravid  
females, these not at all active. The lone ♂

seen and taken much more active. Species  
 local, and usually limited. Trachyrhynchus  
cornutus 1 ♀ taken in same areas as  
Xanthippus. Continued search brought no more  
 to light. Psolocosa mac. locally numerous,  
 very active, particularly ♂♂. Psolocosa fixa  
 1 ♂, 1 juv. ♀ taken in same area. Pseudoceryle  
 1 juv. impt. Aganostetix juv., Herpessetix  
juv., Melanophus juv. and Aedopliid juv.,  
 all impt. Cordillans juv., 1 impt.

$$\text{Orth. } 31 + 2455 = 2486.$$

$$\text{Other inv. } 5 + 2515 = 2520.$$

1954. 287 1 m. S of South Entrance to South  
 Rim section of Grand Canyon Nat.  
 Park, Coconino Co., Arizona. Elev. (an.)  
 6725 feet. VI. 8, 1954. (R.)

Sage, brush grass and low flowering  
 annuals under pine, with rocky soil.  
Psolocosa mac. 1 ♂ on ground. juv. Psolocosa  
 (2) impt. juv. Aganostetix impt. juv. Aedopliid  
 juv. Melanophus impt.

$$\text{Orth. } 15 + 2486 = 2501.$$

$$\text{Other inv. } 10 + 2520 = 2530.$$



✓ 1954. 288. 3 mi. W. of Parks, Coconino Plateau.  
Coconino Co., Arizona. Elev. (am), 7000 ft  
VI. 8. 1954. (R.P.)

Roadside under pine, in thick grass. etc., on  
Cora fragments. Wind high.

1 Centistes ♂ in p. juv. Agrostellix ditto.  
juv. Melanophus & juv. Acolyptides swept.

Orth. 10 + 2501 = 2511.

Orth. ins. 5 + 2530 = 2535.

✓ 1954. 289 1 mi. E. of Riordan, Coconino Plateau.  
Coconino Co., Arizona Elev. (am.) 7200 ft VI. 8. 1954  
(R.)

Roadside, vegetation largely weeds, including  
mullen, bordered by pine woods. Nothing seen  
in ~~wood~~ woods. Wind high.

All O. juv. Melanophus, at least 3 species.

Agrostellix 1 nearly adult. Orth. juv.

Orth. 18 + 2511 = 2529.

Orth. ins 3 + 2535 = 2538.

1954. 290 1/2 m. E. of Winona, Coconino Co.,  
Arizona. Elev. (an.) 6050 ft. VI. 9, 1954. (R.)  
Rabbit weed, tumble weed etc., under open  
stand of juniper + piñon. Wind very high.  
Perlossa delic. 1 ad. ♂. Amphitomus 1 juv. juv.  
Agamotettix. Nothing else seen or swept.  
Orth. 4 + 2529 = 2533.

Orth. ins. 2 + 2538 = 2540.

---

1954. 291 6.5 ms. E. of Winslow, near  
Cottonwood Wash, Navajo Co., Arizona.  
Elev. (an.) 4275 ft. VI. 9, 1954. (R.)  
Reddish, <sup>deep</sup> sandy silt, almost no plant cover.  
1 juv. ? all O. seen.  
Orth. 1 + 2533 = 2534.

Orth. ins. 5 + 2540 = 2545.

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1954. 292 4 ms. S. of Holbrook, Navajo Co.,  
Arizona. Elev. (an.) 4800 ft. VI. 9, 1954. (R.)  
Brush grass and tumble weed. Wind  
frightfully high and with almost  
improvisable. juv. Pseudoscorpion and  
juv. Acetophris swept.

Orth. 2 + 2534 = 2536.

Orth. ins. 3 + 2545 = 2548

1954. 293. Low sandstone ridge with juniper  
15 ms. S. of Holbrook, Navajo Co., Arizona.

Elev. (an.) 5240 feet. VI. 9, 1954. (R)

Atriplex and bunch grass on sandy silt  
at base of sandstone outcrop. Wind very  
high. Alumet nothing found.

1 juv. Paropomala rapt.

Orth. 1 + 2536 = 2537.

Other ins. 4 + 2548 = 2552.

1954. 294. 25 ms. NW. of Springerille,

Apache Co., Arizona. Elev. (an.) 6680 feet.  
VI. 9, 1954. (R.)

Tall grass and flowering annuals on  
reddish loam soil. Utman park-like  
juniper and piñon.

Critetis mod. numerous. Melan. flabellifer tw.

adults + tw. juv. Mel. sp. 1 juv. Ph.-w. Aegnestetis

1 ♂ + num. juv. Protorosa delia. a few, 1 ♂ + 1 ♀

Fahr. Juv. Cordillaria funeral. on ground.

Juv. Wesputetis + juv. Amela Acloplida.

Juv. Trachyphacia + cert. juv. not readily  
referred to genus.

Orth. 54 + 2537 = 2591.

Other ins. 11 + 2552 = 2563.

✓ 1954. 295 7 ms. E. of Springerville, Apache  
Co., Arizona. Elev. (ch. an) 6925 feet  
VI. 10. 1954. (R.)

East face of lava bench bordering Coyote  
Creek. Slopes juniper covered - ground  
corn (heavily grazed) chiefly very short  
grass - rabbit weed.

*Psoralea delic.* on ground surface, also juv.  
*Trachypachia* <sup>juv. *Cnephila*</sup> *Hesperotettix* in rabbit weed.

Orth. 10 + 2591 = 2601.

Orth. inc 9 + 2563 = 2572.

↓ 1954. 296 8 ms. E. of N. M. state line, 2 ms. W.  
of Red Hill, Catron Co., N. M. Elev. (an) 7400  
feet VI. 10. 1954. (R.).

Sparse short grass and some rabbit weed  
(all heavily grazed) among juniper & piñon.  
Saw but lost *Psoralea delic.* Mind very high.  
juv. *Hesperotettix* juv. *Circotettix* (?) impt.

Orth. 2 + 2601 = 2603.

Orth. inc. 6 + 2572 = 2578.



✓ 1954.297 18 ms. E. of Red Hill, Catron Co.,  
N.M. Elev. (an.) 8475 feet. VI 10. 1954. (R.)  
Tufts of short curly grass on reddish silt  
under piñon.

*Psolocesa delic.* <sup>in ground,</sup> both sexes, ♀♀ imp. in ground.

Juv. *Cordillaris* in ground.

Orth. # 9 + 2603 = 2612.

Other ins 2 + 2578 = 2580.

✓ 1954.298 Continental divide 1.5 ms. E. of  
Pictown, Catron Co., N.M. Elev. (b.m.) 8112 feet.  
VI. 10. 1954. (R.).

Sandy silt with a *Baccharis*-like plant,  
bunch grass and tufts of low curly grass.  
Slopes with juniper and piñon. Wind  
very high.

*Psolocesa delic.* adult very few, 1 Taken. *Cordill.*

juv. 1 impt. Juv. of several species of *Melanophus*?

Orth. 6 + 2612 = 2618.

Other ins. 14 + 2580 = 2594.

✓

1954. 299 Hatil Mountains, 16 m. E. of  
Pictown, Catron Co., N. M. Elev. (an.) 8000 ft  
VI. 10. 1954. (R.) [Probably very near where  
we camped in 1937.]

Short curly grass and a Baccharis-like  
plant. In open valley in tall pine woods.  
Everything in Q. taken on ground.

Psoralea delii. rather numerous, quite  
active. Juv. Cordillaria a few.

Juv. Aedopides? a few. Juv. Trachypachia?  
Levth. 14 + 2618 = 2632.

Utterins. 12 + 2594 = 2606.

✓ 1954. 300 10 mo. N. of Magdalena, Socorro  
Co., N. M. Elev (an.) 7600 ft. ~~[Not checked  
on topography!! may be too high.]~~ VI. 10.  
1954 (R.)  
Short curly grass under park-like juniper  
- pinyon. Mild & rains fast.

Psoralea delii. ♂ & ♀. on ground, very active.

" Fraxina 1 juv. ♀ ditto.

Juv. Cordillaria on ground

Juv. Trimerotropis sp. on ground.

Levth. 9 + 2632 = 2641.

Utterins. 1 + 2606 = 2607.

✓ 1954.301 6 ms. E. of Magdalena, Socorro  
Co., N. M. Elev. (an.) 5800 ft. VI. 10. 1954. (R.)

Tall sun-cured grass, short curly grass and  
fumble-weed, with yucca and cholla (much  
of latter in flower).

Psolus delic. 1 ♂ in pr. Psolus Texana 1 ♂  
ditto. Phibstoma 1 juv. swept. Paropemala 2 juv.  
swept. Centistes 1 ad. Amphitoma 1 juv. swept.  
juv. Cordillaria in pr. juv. Agmatitis in pr.  
Melanophus juv. of several species. Numerous  
of detritid - gen. ?

Orth 29 + 2641 = 2670.

Orth. ins. 13 + 2607 = 2620.

✓ 1954.302 6 ms. SW. of Socorro, Socorro Co.,  
N. M. Elev. (an.) 4850 ft. VI, 10. 1954. (R.)

Roadside mesquite and fumble weed  
and dry tall brush grass.

Hesperomera in var. victoria numerous,  
chiefly in mesquite, but a few in fumble  
weed. 1 juv. Pseudomorph swept from ?

Orth. 10 + 2670 = 2680.

Orth. ins. 5 + 2620 = 2625.

✓ 1954.303 1 m. S. of Remitar, Socorro  
Co., N. M. Elev. (an.) 4440 feet. VI. 11. 1954. (R.)

Covillea and mesquite on bank, with  
Atriplex in washes.

Juv. Boottia + juv. detritus in Covillea.  
Juv. Acetophyllodes in Atriplex. Nothing seen  
on ground surface.

Uth. 11 + 2680 = 2691,

Uth. 13 + 2625 = 2638.

✓ 1954.304 Sand areas along Rio Salado  
wash, 1 m. N. of San Acacia, Socorro  
Co., N. M. Elev. (an.) 4525 feet. VI. 11. 1954. (R.)

Loose sand areas with low dunes. Sole  
cover spaced out low shrubs and a  
trumpet-flowered one which largely  
formed the low dunes. Nothing on  
sand surface. Sole C. a juv. Heaphysma  
• a juv. Chistocoma, both swept from  
the trumpet-flowered shrub.

Uth. 2 + 2691 = 2693.

Uth. 6 + 2638 = 2644.



✓ 1954. 305 6 ms. S. of Bernardo, Socorro Co.,  
N. M. Elev. (an.) 4775 feet. VI. 11. 1954. (R.)

High mesa with little on it but dried-up  
bushes - and, a few scattered low junipers and  
prunyon and an occasional mesquite. Com-  
pletely grazed out - no rain for months and  
little snow last winter. Everything taken was  
empt from the few mesquite.

Site C. a juv. Insara & a juv. dictoid.

$$\text{Length. } 2 + 2693 = 2695.$$

$$\text{Length ins. } 50 + 2644 = 2694.$$

✓ 1954. 306 1 m. S. of Sabinal, Socorro Co., N. M.  
Elev. (an.) 4725 feet. VI. 11. 1954. (R.)

Sandy silt with some clumps of tall  
Ephedra, Atriplex and mesquite. Almost  
all C. taken from Ephedra.

Juv. Melanoplus in Atriplex, also juv. Insara.

Nothing on ground. Leptomeria largely  
immature, but 2♂ - 1♀ app. adult.

$$\text{Length, } 25 + 2695 = 2720.$$

$$\text{Length ins. } 9 + 2694 = 2703.$$

✓ 1954.307 12 ms. NW. of Algodones, Sandoval Co., N.M. Elev. (an.) 5700 feet. VI.11.1954. (R.)  
Adobe silt with short grass, trimm-wood, etc.

*Cordillaris* on p. juv. <sup>*Pseudoscorpion*</sup> ~~*Diapheromera*~~ *rupta*  
Mud high.

$$\text{Arth. } 2 + 2720 = 2722.$$

$$\text{Arth. no. } 12 + 2703 = 2715.$$

✓ 1954.308 4 ms. NW. of Canoncito, Santa Fe Co., New Mexico. Elev. (an.) 7400 feet. VI.12.1954 (R.)

On bare silt or sand with low cover of various plants, including scattered white sage, including one park-like juniper.  
Ad. + juv. *Trim. pallidus* on bare ground, very active. *Pseudoscorpion* *delic.* locally numerous on bare areas. juv. *Cheratomyia*, juv. *Ceolophila* + juv. *Melanoplus* *rupta*.

$$\text{Arth. } 18 + 2722 = 2740.$$

$$\text{Arth. no. } 0 + 2715 = 2715.$$

✓ 1954.309 2 ms. N.W. of Rowe, San Miguel  
Co., New Mexico. Elev. (ch.) 6700 ft. VI.12.1954. (R.)  
In early grass between rather heavy stands  
of piñon.

Ad. ♂ Ceritellix, a few Perlorosa deliei, 1 juv.  
(very small) Oecanthus, 1 juv. Melanoplus.

Utter. 6 + 2740 = 2746.

Utter in. 3 + 2715 = 2718.

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1954.310 1 m. N. of Romeroville, San Miguel  
Co., N. M. Elev. (ch.) 6500 ft. VI.12.1954. (R.)  
Tall bunch grass, various weeds and areas  
of bare silt. Material of some specimens  
abundant. Wind very high.

Heliaula rufa num. ad. & juv. Not very active.

Cordillaris " " " chiefly on bare spots.

Perlorosa deliei. a few adults, both sexes.

Agonistellus juvs. only.

Philibetrona juvs. - no instars.

Herpanopterna 2 juvs. - instar preceding next.

Ceritellix a few adults - both sexes.

Herstroma juvs. - no instars - on bare areas.

Trachyphachis a few juvs. on bare areas.

Trimastix red-leg. - 1 juv.

Hemiptera - 1 very small juv. nymph.

Juv. of several species of Melanoplus.

Uroth. 62 + 2746 = 2808.

Uroth. vis. 13 + 2718 = 2731.

↓  
1954. 311 2 ms. SW. of Watrous, San Miguel  
Co., N. M. Elev. (am) 6770 ft. VI. 12. 1954. (R.)

Tall bunch grass, fringe-wood, other  
woods and areas of nearly bare silt. Very noted!  
Psolocrossa delia. Both sexes adult - not very num.

Cordillaria - a few juvs.

Chrysomitris - 1 ad. -  
Chrysomitris - juvs of both sexes, rather  
numerous.

Agelaius 1 ad. - num. juvs.

Hirundo - 1 juv. impt.

Hypochlora - two juvs. impt.

Melanoplus flavilignus 1 ad. 7. juvs. of several  
species of Melanoplus.

Both Alcedo longicauda 1 juv. impt.

Uroth. 34 + 2808 = 2842.

Uroth. vis. 5 + 2731 = 2736.



↓  
1954.312 1.5 m. N. of Colmar, Colfax Co.,  
N.M. Elev. (an.) 6100 ft. VI. 12. 1954. (R.)

Tall grass and various native weeds, plus  
wild ~~potatoes~~ ~~peach~~ gourd on sandy silt.

Wind trifling!!! The material taken was  
all the O. seen.

1 ad. Aupha on bare spot  
1 juv. Blattylotum - swept. 1 juv. Melanoplus  
on spot

Orth.  $3 + 2842 = 2845$

Orth. vis.  $30 + 2736 = 2766$ .

↓  
1954.313 Canadian River at Taylor Springs,  
Colfax Co., N.M. Elev. (an.) 5800 ft. VI. 13. 1954.  
(R.)

Roadside, scattered grass clumps and  
weeds on very sandy silt. Overcast. Windy.  
Only O. seen there taken.

Juv. Cordillaris + juv. Melanoplus.

Orth.  $3 + 2845 = 2848$ .

Orth. vis.  $17 + 2766 = 2783$ .

↓  
1954.314 1 m. E. of Abbott, Colfax Co., N.M.  
Elev. (an.) 5900 ft. VI. 13. 1954. (R.)

Roadside grass & weeds. Frightfully dry  
and eaten out. Shorn all about. Almost  
no insect life. All O. seen taken.

Juv. Agrostis + juv. Desmodium.

Orth. 4 + 2848 = 2852.

Orth. ins. 10 + 2783 = 2793.

1954 315 2 ms W. of Gladstone, Colfax  
Co., N.M. (~~Elev. check avoided in the rain~~  
~~on acct. of stormy weather~~). VI.13.1954. (R.)

Flowering arounds, some weeds, short grass.  
~~the~~ Very dry. Almost nothing. All C. seen  
taken. Wind very high. Ad. Perdix delir. (1)  
Juv. Condalia + juv. Melospiza (two species)  
Orth. 4 + 2852 = 2856.

Orth. ins. 9 + 2793 = 2802.

1954.316 3 ms. W. of Pasamonte,  
Union Co., N.M. ~~Elev. (avoided not !)~~  
VI.13.1954. (R.)

Short grass on salt with many limestone  
fragments. Some tall grass in road ditch.  
Threatening rain momentarily. All C.  
seen taken. Solely juv. Melospiza.

Orth. 1 + 2856 = 2857.

Orth. ins. 2 + 2802 = 2804.

✓ 1954 317 11.5 ms. E. of Pecos, Union  
Co., N.M. ~~Elev. (an.) 5000 feet. VI. 13, 1954. (R.)~~  
VI. 13, 1954. (R)

Typical high plains plant comm. - tufts of  
grasses, two yucca, many flowering annuals,  
areas of bare limestone broken rock and  
gravel. Wind very high. Storm areas all about.

All O. seen represented in mat. Taken.

Prolocosa delic. 1 taken. Cordilleria a number,  
no true spets. Paropomala juv. swept from

grasses. Agrostis juv. - num. juv.

Melanoplus appar. repr. sev. species. 1 juv.  
detritoid.

Orth. 21 + 2857 = 2878.

Orth. ins. 13 + 2804 = 2817.

✓ 1954. 318 7 ms. SW. of Clayton, Union Co., N.M.  
Elev. (an.) 5000 feet. VI. 13, 1954. (R.).

Typical high plains vegetation, tall grass, etc.

Wind terrific - work almost impossible.

Critellus - 2 adults. Prolocosa delic. 1 ad.

Juv. Melanoplus, repr. 2 species. Juv.

Hactylotum - 1. Juv. Agrostis - 1.

Orth. 9 + 2878 = 2887.

Orth. ins. 1 + 2817 = 2818.

✓ 1954.319 5 ms. S.E. of Clayton, Union  
Co., N.M. Elev. (an.) 4950 ft. VI.13.1954, (R.)  
Rather windy high plains plant cover,  
with mats of low grass and bare ground  
between.

Cordillarius nummulus, actus. Adults &  
juvs. but largely adult.

Melanoplus flavellipes 1 ad. ♂.

1 juv. Melanoplus diff. species

1 juv. Hesperotettix. juv. Meridiana

1 juv. Trachypachis, or frank.

Juv. Phloxotoma, a few. juv. Agrostotettix.

Length.  $33 + 2887 = 2920$

Other inv.  $5 + 2818 = 2823$ .

✓ 1954.320 1/2 m. S.E. of Corlana, Hallam  
Co., Texas. ~~Elev. about 3000~~ (R.) VI.13.1954

Typical high plains vegetation with soft  
sage, sunflower, flowering annuals,  
etc., also some brush and.

Elaphromera, 1 juv. impt. Eutettix

1 ad. Cordillarius, a small one, <sup>mostly</sup> ad.

adult. Paropomata juvs. in 2 instars.

Agrostotettix juvs. Brachyptera 1 juv.



1954. 320 (cont.)

Trinectes pallidip. no. on tree spots, flying freely.

Juv. Hesperotettix opacus small lot, nupt.

Juv. Schistocerca 1 nupt.

Juv. Melanoplus, nupt, appar. representing several species.

Uth. 36 + 2920 = 2956.

Uth. ins. 6 + 2823 = 2829.

1954. 321 1 m. SE. of Ware, Hallam Co., Texas. Elev. (an.) 4025 feet. 2VI, 13. 1954. (R.)

Rather rank high plains plant com, with numerous yuccas, sunflowers, etc.

Aerolophites viridis 4 ♂, flying freely, sometimes taking refuge in a yucca.

No ♀♀.

Cordillaris abundant, almost all adults, rather general, but locally more numerous.

? Hypochlora no. juv. 1 juv. Paropromela.

Juv. Melanoplus, appar. 2 spp. nupt.

Uth. 35 + 2956 = 2991.

Uth. ins. 3 + 2829 = 2832.

✓ 1954. 322 1/2 m. SE. of Twist, Hartley  
Co., Texas. Elev. (an.) 3800 ft. VI. 14, 1954. (R.)

Roadside - weeds, sunflowers, flowering  
annuals & tall grass. Wind high. Vegetation  
rather wet - insects holding close.

Cordillaria sticking to ground surface on  
root areas of grass clumps. Ceritettix 1 ♂,  
1 ♀. Juv. Ageneotettix few. Juv. Haptolotus,  
1 impt. Juv. Melanophus rural, repr.  
diff. species. Juv. Paropromela, 1 impt.

Orth. 14 + 2991 = 3005.

Other ins 29 + 2832 = 2861.

✓ 1954. 323 8 ms. S. of Hartley, Hartley Co.,  
Texas. Elev. (an.) 3675 feet. VI. 14, 1954. (R.)

Tall grass and weeds near fields flooded  
by rains of yesterday and last night.  
Wind strong.

Ceritettix numerous, both sexes.

Amphitornus, a single one seen & taken.

Melanophus rural. 1 ad. ♂ & 1 ad. ♀ taken

" flabellifer 2 ♂ taken.

Juv. " approx. repr. 3 species.

Juv. Metatrichyachia - 1 impt.

Juv. Ageneotettix, 1 all seen.

Orth 23 + 3005 = 3028.

Other ins 25 + 2861 = 2886.

✓ 1954. 324 5 ms. S. of Humas, Moore Co.,  
Texas. Elev. ~~(low)~~ <sup>circa 3500 ft.</sup> ~~2~~ <sup>(slightly more)</sup> VI. 14, 1954. (R.)

Grass - short - tall - brushy, flowering  
annuals, thistle and numerous other  
components of high plains flora, and a  
few yuccas. 1 juv.

Cordillaris a few, Psolerosa delic. a few, ~~both these~~.  
all males. Amphitornus, several juvs. Agrostellix,  
num. juvs. Juv. Heptanopterus, numerous  
Juv. Melanophus, appar. rep. 2 species

Orth. 35 + 3028 = 3063 .

Other ins. 5 + 2886 = 2891 .

✓ 1954. 325 22 ms S of Humas, Potter Co., Tex.  
Elev. (an) 3150 ft. VI. 14, 1954. (R.)

Plains vegetation with dense masses of  
brown-eyed susan sunflowers, purple thistles  
and numerous other flowering plants, with a  
very few yuccas. Very few O.

Juv. Agrostellix, 1. Juv. Melanophus, rep.  
of two species.

Orth. 5 + 3063 = 3068

Other ins. 24 + 2891 = 2915.

↓  
1954 326 W. 67 Crossing of Canadian  
River, 17 ms. N. of Amarillo, Potter Co., Tex.  
Elev (an.) 2650 feet. VI. 14. 1954. (R.)

Level of river well cut below the general  
level of the plains, apparently permitting  
intrusions from lower ~~levels~~. Down stream.  
Wet areas with rank growth of grass,  
tall weeds, many wild gourds, thistles, etc.  
Juv. Mermiria, approx. two instars, <sup>(4 maybe)</sup> all green  
Cerititer a few. Amphitomus small.  
Poolea Tex. few males. Philibotoma  
2 juvs. in instar preceding maturity.  
Agrotiter, num. juvs. small instars.  
Hesperopterna? " " " "

Boopis, 1 juv. all green

Cyphus - large sizes - numerous, flying freely  
and going long distances with the wind.

Usually alighting on bare areas, but sometimes  
in vegetation. Spharagnum collar type.

1 ad (all green) & juvs. in at least 2 instars.

Melanoplus - juvs. of at least two species.

Orth. 59 + 3068 = 3127

Other ins. 17 + 2915 = 2932.



✓ 1954. <sup>327</sup>~~326~~ 10 ms. N. of Amarillo, Potter  
Co., Texas. Elev. (an.) 3100 ft. VI. 14, 1954. (R.)

Plains vegetation with much bare pebbly  
ground. Cover largely bunch grass, the little  
rabbit-wood, etc.

Phyllaphemura - juv. Hesperotettix in  
rabbit wood. Juv. Hadrotettix usual on  
ground. Juv. Heptanopterna? usual.

Orth. 16 + 3127 = 3143.

Other ins. 4 + 2932 = 2936.

1954. 328 Palo Verde Canyon, Palo Verde State  
Park, 13 ms. E. of Canyon, <sup>Randall</sup> Potter Co., Texas.

Elev. (check) <sup>not rim at top</sup> about 3650 ~~at top~~ VI. 15, 1954 (R.)

Spurce grass, much yucca, soft sage,  
some weeds (trunkle-weed - sand bars)  
and scattered mesquite. All species of U.  
seen near Fisher.

Trinotus pallidip. Two on bare surfaces.

Xanthippus crallipes 1♂, all seen, flying  
strongly.

Melanophus mexicanus 1♂, 1♀ adults.

" sp. juv. ~~Part. rep. 2 species.~~

Hesperotettix ns. juv.

Pollocnem delacatula 1♂.

Trachyrhynchus. Num. of juvs. in 2 instans.

Agrostellix. Juvs only

Cordillaria 1 ad. ♀ - all seen.

Pediocetes 1 juv. ♀, all seen - kept.

Orth. 28 + 3143 = 3171.

Other ins. 17 + 2936 = 2953.

↓  
1954.329 Palo Verde Canyon, Palo Verde State  
Park, E. of Canyon, <sup>Randall</sup> Potter Co., Texas.

~~Colo (check) was not kept here.~~ VI. 15, 1954. (R.)

Bottom of canyon near stream bed at  
foot of road up escarpment.

Bottom - stream bed. Growth of mesquite  
and other trees, with juniper on the  
flaps. Much tumble-weed and sand-  
bars, rather thickly grassed. Many  
annuals in bloom. Little Q.

Juv. Pediocetes. Beaten from mesquite.

Juv. Melanoplus, var. spicatus repus.

Juv. Phlebotomus, one only.

Juv. Agrostellix, 1 only.

Juv. Trachyrhynchus, a num. very small.

Juv. Amphitornis 1 ♀.

Orth. 12 + 3171 = 3183.

Other ins. 20 + 2953 = 2973

✓ 1954.330 1.5 ms. ~~to~~ W. of entrance to Palo Verde State  
Park, <sup>Randall</sup> Potter Co., Texas. Elev. (an.) 4250 ft. (prob. 4K.).  
VI.15.1954. (R.).

Rundide grass, thistles, a few yucca and  
a type of wheat grass. Very little at all  
Melanoplus mex. w. adults.

" sp. juvs. 2 or so species.  
juv. Agamotettix. juv. Trachycharis, 10.  
juv. Mermiria, 1.

Orth. 12 + 3183 = 3195.

Orthids. 8 + 2973 = 2981.

✓ 1954.331 Conway, Carson Co., Texas. Elev.  
(an) 3875 feet. VI.16.1954. (R.).  
<sup>High plains, open flat.</sup>

Tall weeds and grass with a few ~~too~~ bare  
spots, a few prickly pear and some wild  
mustard + tumble-weed.

Ad. Antrozous, a few. Little 1 Trachycharis +  
juvs. in 2 instars. juv. Phlitrotrama +  
juv. Agamotettix. juv. Melanoplus - 2 spp.

Orth. 13 + 3195 = 3208.

Orthids 13 + 2981 = 2994.

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↓  
1954. 332 2.5 mo. E of Grooms, Carson  
Co., Texas. Elev. (an.) 3075 ft. VI. 16. 1954.  
(R.).  
High plains, land. Tall grass - weeds,  
roadside.

Aurora 1 ad. + 1 juv. Amphitornus 1 juv.  
juv. Hesperotettix. juv. Phibstoma  
juv. Agrostotettix - juv. Mermiria.

Orth. 8 + 3208 = 3216.

Orth. ins. 9 + 2981 = 2990.

↓  
1954. 333 3 mo. W. of Alameda, Gray Co.,  
Texas. Elev (an.) 2850 ft. VI. 16. 1954. (R.)  
Rolling plains near Top of "Creek of plains".  
Tall grass, weeds, etc. roadside.

Sub. juv. Chiapteromera, rupt. 1 ad Exitettix  
juv. Agrostotettix. juv. Amphitornus +  
juv. Trachyrhachis. juv. Mermiria  
numerous, sev. instars. juv. Melanoplus.

Orth. 17 + 3216 = 3233.

Orth. ins. 8 + 2990 = 2998.

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✓ 1954. 334 4 ms. E. of Shamrock, Wheeler  
Co., Texas. Elev. (an) 2450 ft. VI. 16, 1954. (R.)

Rather heavy corn natural corn of dense  
brushes of various kinds, flowering annuals, &  
tall grass, and a disturbed area with many  
weeds

One bare area, Hippiscus ad. + juv., ~~seed~~  
Amphispiza ad. <sup>juv.</sup> & ad. Pooecetes texana.  
1 ad Aurora Aedolides 1 ad. ♀ unsp.

Juv. Agelaius num. a number of instars.  
Melanerpes mex. 1 ad. ♀. Juv. Melanerpes  
sp. at least 3 species. Juv. Mermis num.,  
juv. - imm. phases. Juv. Peripateticus speciosus,  
at least 2 instars. 1 juv. Apria. 1 small juv.  
Helicophila.

Orth. 53 + 3233 = 3286

Orth. ins. 9 + 2998 = 3007.

✓ 1954. 335 4 ms. ENE of Erick, Beckham  
Co., Oklahoma. Elev. (an) 2000 ft. VI. 16, 1954.  
(R.).

Wheat with heavy grass and (2) natural  
dry corn on red silt (corn waist high)  
with bare spots.

Hippiscus on short grass area.

Helicophila unsp. in dry area.

Juv. Mermiria numerous, about 3 meters upr. - all  
juv. Juv. Agaveotettix. Juv. Hesperotettix  
sparsus. Amphitornus ad. juv. Pediodectes  
juv. in heavy vege. in drain. Juv. Melanoplus.

Orth.  $16 + 3286 = 3302$ .

Orth. vis.  $7 + 3007 = 3014$ .

1954.336 15 ms. E of Canute, Washita Co.,  
Oklahoma. Elev. (am.) 1800 ft. VI.16.1954. (R.)  
Tall grass and weeds in ditch and general  
roadside comm.

Melanoplus mix juv. & ad. Melanoplus  
virgatus ad. of both sexes. Juv. Melanoplus  
repr. at least 3 species. Juv. Mermiria, 2  
insects - juv. - nymphs. 1 ad. Trachyrhachis.  
Juv. Agaveotettix num. 18 1 ♀ Phlebotomus.  
1 very sm. juv. Rehman, in ditch vegetation.

Orth.  $25 + 3302 = 3327$ .

Orth. vis.  $2 + 3014 = 3016$ .

✓ 1954. 337 5 ms. E. of Clinton, Custer Co.,  
Oklahoma. Elev. (an.) 1575 feet. VI. 17, 1954  
Roadside tall wheat grass, Hunter  
grass and some places with bare red  
soil. (R.)

Agrostotettix very abundant as juvs., with  
a very few adults. Mercuria juvs. numerous.  
Thaumatococcus 1 ad., all seen. Amphitornus, a  
few adults. Juv. Lepus several. Juv. Hedeotettix,  
1, all seen. Phlebotomus, a few adults. Geoph  
Acroplides, 2 yg, all seen. Melanoplus mex.  
abund. as adults. Melanoplus sp. 1 ♂.  
Spharagnum, 1 juv. Trin. & pallidip.  
sw. on bare areas. Pediosellus, 3 juvs. mpt  
in roadside drain tall vegetation.

Juv. Melanoplus, appar. up. 3 pieces

Urth.  $56 + 3327 = 3383$ .

Urth. us.  $1 + 3016 = 3017$ .

✓ 1954. 338 Bluffs above N. bank of  
Canadian River, 3 ms. E. of Bridgeport,  
Canadian Co., Oklahoma. Elev. (an.)  
1450 ft. VI. 17, 1954. (R.).  
Native vegetation with much rank grass  
on top of bluff and on road run in same.

Melanoplus mex. num. as adults.

" flavipes? mod. numbers.

Despautellia speciosa, a few adults & many  
juvs.

Juv. Melanoplus, sev. spec.

Hartigiana, 1 ad. of each sex & 2 juvs.

Juv. Mimica, numerous. Juv. Despautellia.

Juv. Agrostis, very few.

Spharagmus cellae, a few, some sps.

Trin. Citraria, sev., ditto.

Uta Uranus 1 ad. impt.

1 ad. Despautellia var.  
roadway.

Juv. Rubra, 1 impt.

Uts.  $47 + 3383 = 3430$ .

Uts. ins 1 + 3017 = 3018.

↓ 1954-339 3 mo. E. of Pond Creek Grant Co.,  
Oklahoma. Elev. approx. 1000 feet.  
Creek - near highway.  
VI. 17, 1954. (R.)

Wedge water vegetation & tall grass  
in roadside ditches and banks.

Overwhelming quantities of juvs.

Aphis 1 ad., all imm. Spharagmus, 1 ad.,  
few imm. Melanoplus flavipes? num.

Despautellia speciosa, a few juvs. only.



1954.339 (cont)

Agrestotellix, 1 ad. - numer. juvs.

Juv. Mermiria, abundant, gray-green phase.

Juv Melanoplus, app. repr. 2 spp.

Anthrenomyza juvs. - numerous.

Cnth. 34 + 3430 = 3464.

Uthman. 1 + 3018 = 3019

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1954.340. 13 ms. E. of Ponca City, Osage Co., Okla. Elev. (an.) 800 ft. VI, 18, 1954. (R.)

Roadside drain and tall coarse grass, in area of open and copse of Oak timber.

Agrestotellix juvs. abundant, a few adults.

Boopis harmonium, 1 ad. - a number of juvs. - grass particularly.

Melanoplus brittatus abundant, adults -

juvs. M. confusus, a number, adult.

M. packardii type, a few adults.

Neopentellix speciosus, juvs. only.

Pseudopomala 1 juv. Critellus 1 ad. ♀.

Hippus 1 batman ♀. Conophalus

juvs. only Uddenia a number of juvs. - 1 coll.

Cnth. 65 + 3464 = 3529

Uthman 6 + 3019 = 3025.

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↓ 1954.341 9 ms. W. of Burbank, Osage Co., Okla. Elev. (an.) 775 ft. VI. 18. 1954. (R.)

Open rolling "plains" com. with milkweed, tall grass, brown-eyed susans, etc.

Diapheromera, 1 ad. ♂ - sev. juvs. mpt.

Agrestotellus, 1 ad. - num. juvs.

Aspilota small lot of juvs. mpt.

Asphid, small juvs.

Hadrotettix, 3 ad. ♂♂ - 3 juvs.

Arctia 1 in instar penult. mat. mpt.

Saundersia 1 juv. mpt.

Oecanthus num. adults, mpt.

Orth. 47 + 3529 = 3576.

Orth. ins. 10 + 3025 = 3035.

↓ 1954.342 N. of Okesa, 11 ms. NE. of Pawhuska, Osage Co., Okla. Elev. <sup>approx.</sup> 700 ft. VI. 18. 1954. (R.)

Roadside tall ~~gr~~ coarse grass & weeds bordered by belts of oaks.

Pseudophala, only in coarse tall grass <sup>adults & juvs. <sup>mainly</sup> ad.</sup>

Boopis sarum juvs. only.

Juv. Mimicra num.

1 juv. Aspilota perisus.

Juv. Agrestotellus.

1954 342 (cont.)

Melanoplus lineatus abundant - mainly ♂♂.

many juvs.

Mel. ephesus, sev. males.

" flavus type a few.

Conocrepus, juvs. only.

Orth 46 + 3576 = 3622

Other ins. 5 + 3035 = 3040.

✓ 1954.343 Cody's Bluff, on E. <sup>side</sup> of  
Verdegris River, 4.5 mi. E of Norvata,  
Norvata Co, Okla. Elev. (alt) 200 feet.  
VI. 18, 1954. (R.).

Tall grass and weeds on roadside  
exposure of limestone, bare in places

Protoparce thoracica 1 juv. all seen.

Agrotis, a few ads. & many juvs.

Neaprotis purpurea 1 ad. & num. juvs.

" pratensis 1 ad. all seen.

Melanoplus mex. numerous.

" lineatus abund. ad. & juv.

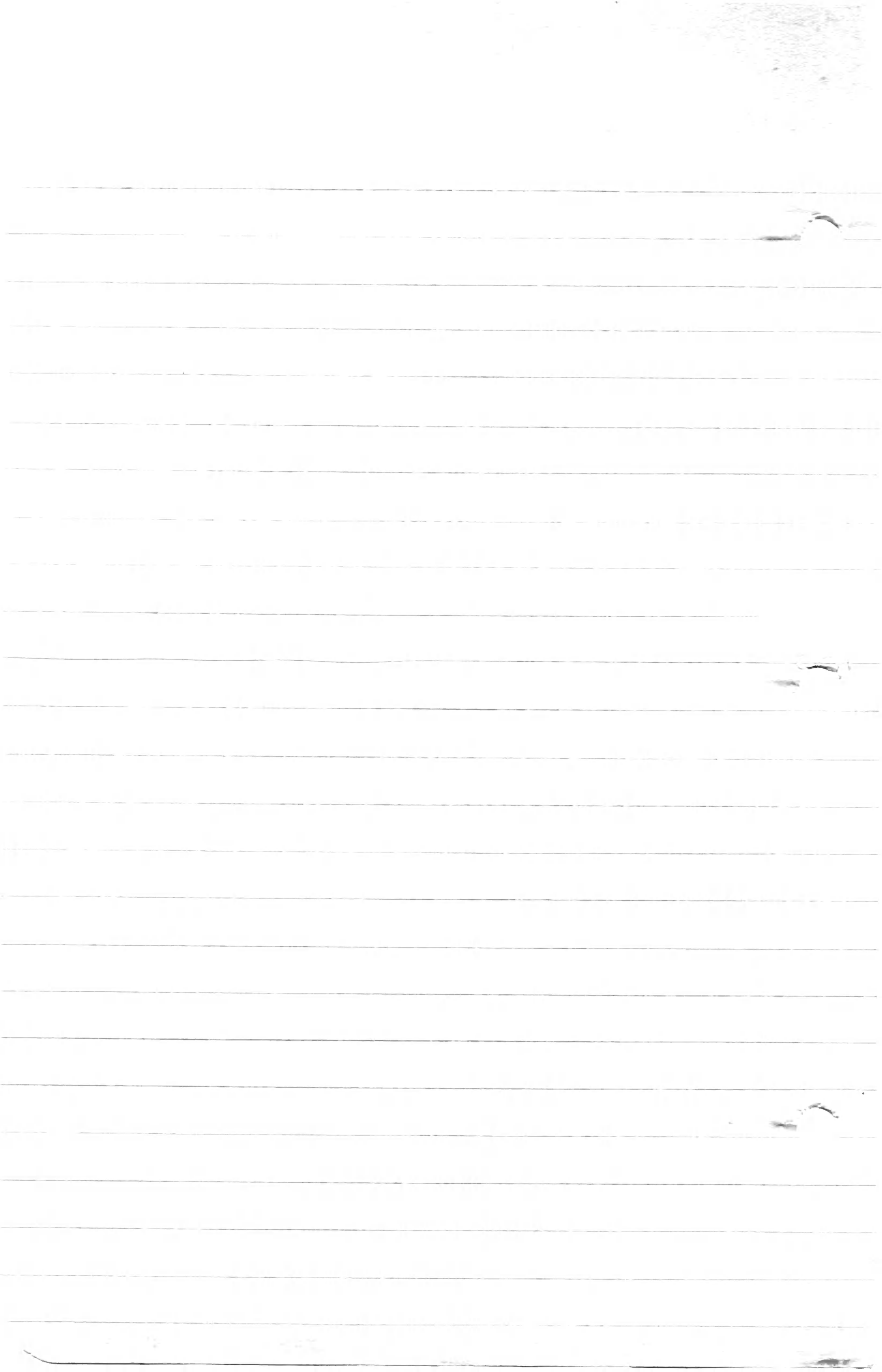
ad. ♂♂ num num. than ♀♀.

Anthrenus 1 juv.

Pediodontus 2 ad. ♀♀ in heavy grass - all  
seen. Decanthes ♂-♀ num.

Orth. 37 + 3622 = 3659

Other ins. 3 + 3040 = 3043.





	Localities marked.	Specimens collected.
West Virginia	13	191
Virginia	43	725
Kentucky	5	41
Tennessee	5	68
Alabama	12	161
Mississippi	5	86
Georgia	4	19
North Carolina	6	36
Maryland	1	9
Penn (Bedford Co)	3	19
	<hr/> 97	<hr/> 55 40 9 <hr/> 1355